INDUSTRIAL WASTEWATER DISCHARGE PERMIT

(Permit No. 07-4)



Town of South Hadley

DEPARTMENT OF PUBLIC WORKS 10 Industrial Drive South Hadley, Ma 01075 Telephone (413) 538-5033 FAX (413) 534-0884

PERMIT NO. 07-4



DIVISIONS

Engineering Highways and Roads Parks and Grounds Solid Waste Management Storm Water Management Water Pollution Control

CATEGORY I INDUSTRIAL WASTEWATER DISCHARGE PERMIT

In accordance with all the terms and conditions of the Rules and Regulations Governing the Use of Sanitary Sewers in the Town of South Hadley, Massachusetts, as amended, and in accordance with the conditions set forth in this Permit and any applicable Federal or State law or regulation:

Permission is hereby granted to:

Holyoke Sanitary Landfill, Inc. 11 New Ludlow Road Granby, MA 01033

for the discharge of industrial process wastewater (landfill leachate) to the Town of South Hadley, Massachusetts sewerage system.

> EFFECTIVE DATE OF PERMIT: April 20, 2007 EXPIRATION DATE OF PERMIT: April 19, 2009

The issuance of this Permit is based on the Industrial Discharge Permit Application, dated February 20, 2007, and filed with the Water Pollution Control Coordinator for the Town of South Hadley, and in conformity with plans, specifications, and other data submitted in support of the above Application, all of which are filed with and considered part of this together with the conditions, requirements, limitations, self-monitoring and compliance schedules specified in this Permit.

Requirements for this Permit are effective upon issuance of this Permit. The herein named company will apply to the Water Pollution Control Authority for permit modification/re-issuance if the industrial process wastewater discharge substantially changes in volume or pollutant characteristics, and will notify the Board of Selectmen of any changes in ownership of the above named company.

Compliance with this Permit does not relieve the Permittee of its obligation to comply with any or all applicable regulations, standards or requirements under local, State or Federal laws, including any such regulation, standard or requirement, or laws that may become effective during the term of this Permit.

Duly Authorized employees of the Town bearing proper credentials shall be permitted ready access at all reasonable times for the purposes of performing their duties in accordance with the provisions of the Sewer Use Rules and Regulations, as amended. Additional information and requirements for Industrial Users with security measures are presented in Item "F" under Standard Conditions.

Permit conditions are specifically and independently enforceable. Noncompliance with any term, condition or requirement of this Permit shall constitute a violation of the Town of South Hadley's Rules and Regulations Governing the Use of Sanitary Sewers, as amended, and will be subject to enforcement response. See Item "H" under Standard Conditions.

Issued By: James M Reidy, Superintendent	Date: 4/12/07	
Town of South Hadley, Dept. of Publi	ic Works	
Recommended By: Melissa A. LaBonte	Date: 4/13/07	: .
WPC Coordinator / Co-Supervisor		
Approved By: Chair, Board of Selectmen	Date: 4/17/07	
chair, board or selectmen		
Witnessed By: Member Board of Selectmen	Date: 4/17/67	



Superintendent/Town Engineer

Town of South Hadley

DEPARTMENT OF PUBLIC WORKS 10 Industrial Drive South Hadley, Ma 01075 Telephone (413) 538-5033 FAX (413) 534-0884



Canal in U.S. - 1794

Engineering Highways and Roads Parks and Grounds Solid Waste Management Storm Water Management Water Pollution Control

August 7, 2007

Mr. Tom Heaton Compliance Manager Waste Management, Inc. 600 New Ludlow Road South Hadley, MA 01075

RE: Permit #07-4

Dear Tom:

Enclosed please find a revised page four, Effluent Limitations, for the above referenced Permit for the Holyoke Sanitary Landfill located in Granby. The sampling frequency for the parameters Heptachlor and Pesticides/PCB's should be annual, as stated in the cover sheet, not semiannual. Please replace this page in your copy of the Permit, and any other copies that you may have distributed.

If you have any questions regarding the changes, please call me at 538-5040.

Sincerely,

Melissa A. LaBonte

WPC Compliance Manager

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EFFLUENT LIMITATIONS

A) Permitted Discharge Locations: For the duration of this Permit, Holyoke Sanitary Landfill, Inc. is authorized to discharge Industrial Process Wastewater (landfill leachate) in accordance with this Permit from the following location: Manhole located in secured area adjacent to Bartlett Street

B) Permit Industrial Discharge Quantities and Quality:

All Permit Limits specified in this section are Local Limits.

Holyoke Sanitary Landfill, Inc. is a Categorical Industry, regulated under 40 CFR Part 445, Landfills Point Source Category.

Flow Monitoring: Shall be continuous monitoring, with daily volumes recorded. Flow volumes shall not exceed the following values as defined in Item Q under the Standard Conditions: Daily Maximum Grab: 55.55 GPM

Maximum Monthly Average: 50,000 GPD Annual Daily Average: 25,000 GPD

	Max. Daily	Max. Daily	Sample	Sample
Parameter	Average	Grab	Туре	Frequency
Нq	5.5 - 9.5 S.U.	5.5 - 9.5 S.U.	Grab	Daily & Record*
Alkalinity	Monitor	Only	Grab	Monthly
Sulfate**	Monitor		Grab	Monthly
Sulfide**	Monitor	Only	Grab	Monthly
BOD	Monitor	Only 2	4 Hour Composite	Quarterly
COD	Monitor	Only 2	4 Hour Composite	Quarterly
TSS	Monitor Only	1500 PPM 2	4 Hour Composite	Quarterly
Boron	Monitor	Only 2	4 Hour Composite	Quarterly
Cadmium	0.028 PPM	2	4 Hour Composite	Quarterly
Chromium (T)	Monitor	Only 2	4 Hour Composite	Quarterly
Lead	2.13 PPM	2	4 Hour Composite	Quarterly
Mercury	0.016 PPM	2	4 Hour Composite	Quarterly
Nickel	Monitor	Only 2	4 Hour Composite	Quarterly
Zinc	Monitor	Only 2	4 Hour Composite	Quarterly
Ammonia	Monitor	Only	Grab	Quarterly
Acetone	Monitor	Only	Grab	Quarterly
MEK	Monitor	Only	Grab	Quarterly
Toluene		2.04 PPM	Grab	Quarterly
O/G	Monitor	Only	Grab	Semiannual
Aluminum	Monitor	Only 2	4 Hour Composite	Semiannual
Barium	Monitor	Only 2	4 Hour Composite	Semiannual
Copper	Monitor	Only 2	4 Hour Composite	Semiannual
Chromium (+6)	Monitor	Only	Grab	Semiannual
VOC-624	Monitor	Only	Grab	Semiannual
VOC-625	Monitor	Only	Grab	Semiannual
Heptachlor		0.003 PPM	Grab	Annual
Pest./PCB's-6	Monitor	Only	Grab	Annual
Cyanide (T)	Monitor	Only	Grab	Annual
Arsenic	Monitor	Only 2	4 Hour Composite	Annual
Molybdenum	Monitor	Only 2	4 Hour Composite	Annual
Silver	Monitor	Only 2	4 Hour Composite	Annual
Titanium	Monitor	Only 2	4 Hour Composite	Annual
			-	

- Daily requirement except for Sundays and Holidays when the Landfill is closed for business.
- ** In addition to the final effluent, samples for these parameters will be collected and analyzed on a monthly basis from both the main and the new leachate stations.

MONITORING REQUIREMENTS

- 1) A suitable sample site for each permitted discharge location to be available for safe, efficient monitoring of the Industry's effluent.
- 2) The Permittee is to continually operate and appropriately maintain effluent monitoring equipment.
 - a) Flow metering with recorder and totalizer to continually measure and record process wastewater flow, to be calibrated in accordance with manufacturers recommendations, but at minimum once per year and maintained with documentation to ensure accuracy of measurement.
 - b) The Water Pollution Control Coordinator for the Town of South Hadley shall have remote access to the SCADA system for viewing purposes only.
 - c) Manual daily grab samples to be taken for pH, with results recorded, except Sundays and Holidays when the Landfill is closed for business.
 - d) pH instrument to be calibrated as necessary and maintained with documentation.
 - e) The Permittee must maintain a reserve of all expendable parts for the above required monitoring equipment.
 - f) The Permittee must maintain adequate record keeping to detail information relating to the Industry's daily operating and monitoring activities. The following information, at a minimum, must be kept in a hard bound ledger or other suitable data management system.
 - Flow meter and pH meter calibrations and maintenance.
 - Flow Data, daily total flow and pH readings, operator initials.
 - Any maintenance, changes, upgrades completed at any permitted discharge location.
 - Any unusual events, spills, upsets, or bypasses that may cause untreated or partially treated waste, or waste incompatible with the Permittee's treatment system to enter the POTW; description of events; effect on compliance status; special monitoring or treatment of wastewater; any contacts made at the POTW.
 - g) Self-monitoring and laboratory analysis of all industrial process wastewater to the municipal sewerage system must be accomplished at least four times per year, no later than March, June, September or December for each three month period.
 - h) For each measurement or sample taken pursuant to the requirements of this Permit, the user shall record the following information:
 - 1) The exact place, date and time of sampling
 - 2) The person who obtained sample/measurement
 - 3) Type of sample taken: Grab or Composite
 - i) All samples shall be collected, preserved and analyzed in accordance with EPA procedures in 40 CFR Part 136 and amendments.
 - j) All analytical reports shall contain, at minimum:
 - 1) The date analyses performed 2) The analytical method used
 - 3) The person(s) who performed the analysis
 - 4) The results of all required analyses 5) The method detection limit
 - k) Oil & Grease testing of any permitted wastewater discharge shall be by EPA Method 1664.
 - 1) The Industrial wastewaters to be accepted by the Town of South Hadley from the herein named company shall be limited to the following quantities and qualities:

EFFLUENT LIMITATIONS

A) Permitted Discharge Locations: For the duration of this Permit, Holyoke Sanitary Landfill, Inc. is authorized to discharge Industrial Process Wastewater (landfill leachate) in accordance with this Permit from the following location: Manhole located in secured area adjacent to Bartlett Street

B) Permit Industrial Discharge Quantities and Quality:

Holyoke Sanitary Landfill, Inc. is a Categorical Industry, regulated under 40 CFR Part 445, Landfills Point Source Category.

Flow Monitoring: Shall be continuous monitoring, with daily volumes recorded. Flow volumes shall not exceed the following values as defined in Item Q under the Standard Conditions: Daily Maximum Grab: 55.55 GPM

Maximum Monthly Average: 50,000 GPD Annual Daily Average: 25,000 GPD

	Max. Daily	Max. Daily		Sample	Sample
Parameter	Average	Grab		Туре	Frequency
				1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
pН	5.5 - 9.5 S.U.	5.5 - 9.5 S.U		Grab	Daily & Record*
Alkalinity	Monitor			Grab	Monthly
Sulfate**	Monitor	Only		Grab	Monthly
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BOD	Monitor	Only	24	Hour Composite	Quarterly
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MEK	Monitor	Only		Grab	Quarterly
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O/G	Monitor	Only		Grab	Semiannual
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Barium	Monitor	Only	24	Hour Composite	Semiannual ·
Copper	Monitor	Only	24	Hour Composite	Semiannual
Chromium (+6)				Grab	Semiannual
VOC-624	Monitor	Only		Grab	Semiannual
VOC-625	Monitor	Only		Grab	Semiannual
Heptachlor		0.003 PPM		Grab	Semiannual
Pest./PCB's-0	608 Monitor	Only		Grab	Semiannual
Cyanide (T)	Monitor	Only		Grab	Annual
Arsenic	Monitor	Only	24	Hour Composite	Annual
Molybdenum	Monitor	Only	24	Hour Composite	Annual
Silver	Monitor	Only	24	Hour Composite	Annual
Titanium	Monitor	Only	24	Hour Composite	Annual
				· •	

- Daily requirement except for Sundays and Holidays when the Landfill is closed for business.
- ** In addition to the final effluent, samples for these parameters will be collected and analyzed on a monthly basis from both the main and the new leachate stations.

REPORTING REQUIREMENTS

- A) Noncompliance Reporting: If an Industrial Users self-monitoring data indicates a violation, the Industrial User must:
 - 1) Inform the Control Authority within 24 hours of receiving the results.
 - 2) Repeat the sampling and analysis and submit the results to the Control Authority within 30 days.
- B) Self-Monitoring Reports: All required sampling and analysis is to be tabulated for self-monitoring reporting to the Control Authority.
 - Self-monitoring reports shall be comprehensive reports addressing all permit discharge limitations stipulated in the Monitoring Requirements and Effluent Limitations portions of this Permit. Any additional monitoring beyond the required minimum shall be included in the report.
 - 2) Analytical reports and chain of custodies are to be included.
 - 3) Each self-monitoring report shall include the certification statement as set forth in 40 CFR 403.6 (a)(2)(ii) and must be signed by both the Industrial User's responsible person or duly authorized representative as set forth in 40 CFR 403.12, and the Industry's Compliance Person.
 - 4) Self-Monitoring Reports must be submitted to the attention of the Water Pollution Control Coordinator at the following address no later than the fifteenth day of the month immediately following the reporting period (specifically April, July, October and January).

South Hadley Wastewater Treatment Plant 2 James Street Chicopee, MA 01020

- C) Monthly Operating Reports: A complete copy of this report, as required by DEP, shall be submitted to the Water Pollution Control Coordinator by the 15th of each month for the preceding month.
- D) Accidental Discharges: All accidental discharges, slugs, upsets or bypasses must be promptly reported to the IPP Coordinator or the Water Pollution Control Supervisor at 538-5040. Upon request, the Permittee shall submit within five days, a detailed written report to include description of event, type of material, concentration, volume, cause, duration, impact on compliance status, duration of noncompliance, corrective action and preventative measures.
- E) Any operating or physical condition at the landfill that could potentially result in non-routine odors and odor complaints shall be verbally reported to the Water Pollution Control Coordinator at (413) 315-0200. A message, including date and time may be left if no answer.

SPECIAL CONDITIONS

The landfill shall not accept Construction and Demolition debris fines (C & D fines) without prior written authorization of the Town of South Hadley.

STANDARD CONDITIONS

This section contains excerpts from the Town of South Hadley's Sewer Use Rules and Regulations that must be followed by the Industry, and other pertinent information.

A. Pretreatment Standards:

All industries in the Town of South Hadley generating wastewater subject to Federal Categorical Pretreatment Standards are required to obtain an Industrial Wastewater Discharge Permit as per Article IX, Section 5, of the South Hadley Sewer Use Rules and Regulations, as amended. It is the Industry's responsibility to maintain records and to comply with the Categorical Standards, as well as any local Limits imposed by the Control Authority, Town of South Hadley.

All industries not subject to Categorical Standards shall comply with Local Limits imposed by the Control Authority, the Town of South Hadley. The South Hadley Water Pollution Control Department will work with each industry and will monitor the industry for compliance.

B. Prohibited Discharge:

Refer to the Town Sewer Use Rules and Regulations, as amended, Article III, Use of the Public Sewers, Sections 3 and 4.

C. Excessive Discharge:

No user shall increase the use of process water in an attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the Federal Categorical Pretreatment Standards, or in any other pollutant specific limitation developed by the Town or State unless expressly authorized to do so by the applicable standard or limitation.

D. Accidental Discharges

Each user shall provide protection from the accidental discharge of prohibited materials or slug discharges of other substances regulated by the South Hadley Sewer Use Rules and Regulations. South Hadley requires that all plans to protect against accidental discharges be submitted to the Water Pollution Control Department prior to the construction of facilities. The user will be responsible for all costs associated with the control of the accidental spill.

E. Contact Persons

Users shall notify the following individuals on matters pertaining to this Permit:

- Water Pollution Control Coordinator South Hadley Waste Water Treatment Plant
 James Street Chicopee, MA 01020 Telephone: (413) 538-5040
- 2. Superintendent of Public Works
 10 Industrial Drive
 South Hadley, MA 01075 Telephone: (413) 538-5033

F. Right of Entry

The POTW Superintendent and other duly authorized employees of the Town bearing proper credentials shall be permitted ready access at all reasonable times to all parts of the premises for the purposes of inspection, observation, measurement, sampling, testing and records examination, in the performance of their duties in accordance with the provisions of the Sewer Use Rules and Regulations, as amended. Records shall also be available for copying. The Town shall have the right to set up on the User's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations.

Where a User has security measures in force which would require proper identification and clearance before entry into their premises, the User shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the Town will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

G. Records Retention

Industrial Users shall maintain records of monitoring activities for a minimum of three years in accordance with the requirements of 40 CFR 403.12(o).

H. Enforcement/Penalties

Any Industrial User found to be in violation of its Discharge Permit will be subject to enforcement action as specified in the Industrial Pretreatment Program Enforcement Response Plan for South Hadley, Massachusetts, and described in Article VI of the South Hadley Sewer Use Rules and Regulations, as amended. These actions may include but are not limited to Notices of Noncompliance or Violation, Administrative Orders, Compliance Schedules, civil and criminal penalties/action.

I. Revocation of Permit/Suspension of Services

The Town may suspend the wastewater treatment services and/or an Industrial Wastewater Discharge Permit when such suspension is necessary, in the opinion of the Board of Selectmen, to stop an actual or threatened discharge which presents or may present an imminent endangerment to the wastewater treatment facility.

J. Pretreatment Violation Publication

The Town shall annually publish in the largest local daily newspaper a list of Industrial Users which were found to be in significant noncompliance with applicable pretreatment requirements or standards at least once during the twelve (12) previous months. Significant noncompliance shall be as defined in 40 CFR 403.8(f)(2)(vii).

K. Confidential Information

Information and data on a User obtained from reports, questionnaires, permit applications, permits, monitoring programs and from inspections shall be available to the public or other governmental agency without restriction unless the User specifically requests at the time of the submission and is able to demonstrate to the satisfaction of the Town that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the User. Wastewater effluent constituents and characteristics will not be recognized as confidential information.

If no claim is made at the time of submission, the Town may make the information available to the public or governmental agency without further notice. If a confidentiality claim is asserted, the information will be treated in accordance with the procedure in 40 CFR Part 2 (Public Information).

L. Permit Transfer

Industrial Wastewater Discharge Permits are issued to a specific Industrial User for a specific operation. A Wastewater Discharge Permit shall not be reassigned or transferred or sold to a new Owner, new User, different premises, or new or changed operation. Any succeeding Owner or User must apply for a new or modified Industrial Wastewater Discharge Permit.

M. Duty to Reapply

Within 180 days of the expiration date of this Permit, an Industry shall reapply for reissuance of the Permit on forms that are available at the South Hadley Water Pollution Control Department.

N. Permit Modification

The Terms and Conditions of the Permit may be subject to modification by the Town during the Term of the Permit as Federal, State, or Local pretreatment limitations or requirements are modified or other just cause exists. The Industrial User shall be informed of any proposed changes in his Permit at least 30 days prior to the effective date of change. Any changes or new conditions in the Permit shall include a reasonable time schedule for compliance.

When an Industrial User proposes to modify an existing discharge occurring in compliance with an Industrial Wastewater Discharge Permit, such that the volume and/or concentration of the discharge will be increased or the constituents modified, the Industrial User shall request a Permit Modification and shall furnish all necessary supporting information to the POTW Superintendent.

O. Slug Discharge

Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge.

P. Slug Discharge Control Plan

As required by 40 CFR 403.8 (f)(2)(v), the Water Pollution Control Coordinator will determine biannually if a SIU needs to maintain a Slug Discharge Control Plan. If necessary, the Industry will be notified of the need to develop or update the Plan in accordance with the above reference regulation.

Q. Definitions

- 1. Daily Maximum Grab (Instantaneous Maximum): The maximum concentration of a pollutant allowed to be discharged at any time in any single grab sample on any given calendar day.
- 2. Maximum Daily Average: The average value of all grab samples taken during any given calendar day. If only one grab sample has been taken, that grab sample becomes both the Maximum Daily Grab and the Maximum Daily Average. If more than one grab sample has been taken, then it is the average of all the individual grab samples. A composite sample by definition becomes the Maximum Daily Average for the calendar day in which it was collected.
- 3. Composite Sample: A composite sample is a collection of individual grab samples obtained at regular intervals, based on either time or flow. Each individual grab sample is either combined with the others and analyzed, or analyzed individually and the results averaged. Composite samples are designed to be representative of the effluent conditions during the entire sampling period.
- 4. Grab Sample: A sample which is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen minutes.
- 5. Annual Daily Average (Flow): Shall be a rolling average based on the total flow for a twelve month period, which will be the most recent months' data plus the proceeding eleven months, divided by the number of days.
- 6. Maximum Monthly Average (Flow): The total flow for any given calendar month divided by the number of days in that month.

PERMIT MODIFICATIONS - INDUSTRY SPECIFIC

HSLI - Granby Landfill

Cover / Signatory:

- Permit No. changed to 07-4
- Effective Dates changed to April 19, 2007 through April 20, 2009.
- Changed Superintendent name and my Title.

Monitoring Requirements: No Changes

Effluent Limitations:

- Removed the semi-annual requirement to sample individual cells for sulfate, sulfide and alkalinity.
- Heptachlor and Pest. / PCB's changed from semi-annual to annual.

Reporting Requirements:

- Added in requirement to submit complete copy of the monthly operating report required by DEP. This will include air monitoring data for the co-gen unit.
- Additional verbal reporting requirement to report any operating or physical condition at the site which may result in odors and/or odor complaints.

Special Conditions:

- No C&D Fines without written local permission.

Standard Conditions:

- No changes.

GRANBY LANDFILL ANALYTICAL REPORT

Table 1 2007									
		Holyoke Sanitary Landfill, Inc							
Granby Sanitary Landfill Quarterly Leachate									
Pump Station Outfall									
all units expressed as mg/l unless otherwise noted:		Permit No. 0			*				
Date Sampled	01/11/07	04/19/07	07/12/07	10/05/07	C Hadley Destruction D				
	0.51701	04/10/01	0111201	10/05/07	S. Hadley Pretreatment Requirements				
pH (grab) (S.U.) (Field)	7.40	7.00	7.33	7.89	5.5 - 9.5				
pH (Grab) (S.U.) (Lab)	7.25	7.33	7.71	7.79	3.3 - 9.5				
Temperature (grab) (degrees C)	2.4	18.4	26.6	19.6	N/A				
		10.4	20.0	19.0	N/A				
Biological Oxygen Demand (composite) (mg/L)	116	759 ×	73.7	130	Maritan				
	'''	700 /	73.7	130	Monitor				
Chemical Oxygen Demand (composite) (mg/L)	660	1,420	ND	1 640 >=					
Chicking Cxygen Bernana (composite) (mgr.)	000	1,420	ND	1,640 ¥	Monitor				
Oil & Grease (grab) (mg/L)	NT	40.5		 _					
Cir de Grease (grab) (mg/L)	NI	10.5	NT	ND	Monitor				
Consider (seek) (seek)	<u> </u>								
Cyanide (grab) (mg/L)	NT	ND A	NT	NT	Monitor				
Total Suspended Solids (composite) (mg/L)	38.0	66.0 ા	5.2	4.0	Monitor Only 1500 mg/l				
Ammonia (grab) (mg/L)	235	186	510¥	490	Monitor				
Aluminum (composite) (mg/L)		0.0912		0.28 ⊀	Monitor				
Arsenic (composite) (mg/L)		0.0368 ≉			Monitor				
Barium (composite) (mg/L)		1.19		1.2 *	Monitor				
Boron (composite) (mg/L)	6.72	4.60	14.4	15.9 ≇	Monitor				
Cadmium (composite) (mg/L)	ND	ND	ND	ND «	0.028 mg/i				
Chromium (composite) (mg/L)	0.0282	0.0195	0.062	0.089	- Monitor				
Chromium, Hexavalent (grab) (mg/L)		ND		ND ®	Monitor-				
Copper (composite) (mg/L)		0.0548×		0.042	Monitor				
Lead (composite) (mg/L)	0.0244	ND	ND	ND	2.13 mg/l				
Mercury (composite) (mg/L)	0.00032×	ND	ND	ND	0.016 mg/l				
Molybdenum (composite) (mg/L)		ND			Monitor				
Nickel (composite) (mg/L)	0.0775	0.0576	0.16	0.18	Monitor				
Silver (composite) (mg/L)		ND			Monitor				
Titanium (composite) (mg/L)		0.0160 *			Monitor				
Zinc (composite) (mg/L)	ND	0.189	0.15	0.27	Monitor				
				<u> </u>	INIOLHIOI				
EPA 608 total (grab) (ug/L)	NT	ND	NT	NT	Monitor				
30.7,30.7				'''	IVIOINIOI				
EPA 625 total (grab) (ug/L)	NT	205	NT	39.0	B4				
	- '*'	200	INI	39.0	Monitor				
EPA 624 total (grab) (ug/L)	1,170.0	5,947.2	ND	<u> </u>					
(grad) (agra)	1,170.0	3,947.2	ND	ND	Monitor				
Total TTO sum EPA 624,625,608 (mg/L)	1.170	6 452		0.000					
1 (mg/L)	1.170	6.152	0	0.039					

Notes: See Table 2 for TTO Organic Analysis Breakdown by method NT = Not tested ND = Not detected mg/L = milligrams per liter ug/L = micrograms per liter Granby Landfill Start Dates: Phase 5 Stage 2/3A approx. July 17, 1998
Phase 5 Stage 3B December 22, 1999
Phase 5 Stage 4 June 21, 2001
Stage 1B Vertical Expansion December 6, 2004

Table 2 2007

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfal!

Total Toxic Organic Breakdown

all units expressed as mg/l unless otherwise noted:

Permit No. 07-4

an units expressed as mg/l unless otherwise noted:		Permit No. (
Date Sampled	01/11/07	04/19/07	07/12/07	10/05/07	
EPA 608 total (ug/l) (grab)	NT	ND	NT	NT	Heptachlor 0.003 mg/l
Heptachlor	NT	ND	NT	NT	
EPA 624 total (ug/l) (grab)	1170.0	5947.2	ND	ND	
Benzene					
1,1-dichloroethane					
Styrene					
1,4-dichlorobenzene	-		,		
1,3-dichlorobenzene					
1,2-dichlorobenzene					
ethylbenzene					
toluene	20.2	63.0	ND	ND	2.04 mg/l
trichloroethene	20.2		110	ND	2.04 mg/l
trichlorofluoromethane					
total xylenes					
Tetrachloroethene					
vinyl chloride			 		
methyl-t-butyl ether (MTBE)	74.8	84.2	 	 	·
methylene chloride	74.0	04.2	 	<u> </u>	
chloromethane			 		
chlorobenzene					
1,2-dichloroethane					
1,1,1-trichloroethane		_	 		
					27
cis-1,2-dichloroethene 2-hexanone (MBK)					
	500				
acetone	503	2,580	ND	ND	
2-butanone (MEK)	572	3,220	ND	ND	
4-Methyl-2-pentanone (MIBK)					
chloroethane					
EPA 625 total (ug/l) (grab)	NT	205	NT	39.0	
Aniline					
butyi benzi phthalate	12.1				
Acenaphthene					
Bis(2-chloroethyl) ether					
3,3-dichlorobenzidine				9.0	
Flourene					
Benzyl alcohol					
4-Chloro-3-methylphenol					
phenol				15	
benzoic Acid					
Di-n-butylphthalate					
diethyl phthalate					
dimethyl phthalate					
2,4-dimethylphenol					
2-methylphenol					
bis(2-ethylhexyl) phthalate				15	
2- Methylnaphthalene			 	19 0	
naphthalene	 				
Isophorone					
3,4-methylphenol		205	 		
Total TTO sum EPA 624,625,608 (mg/L)	1.170	6.152	 	0000	
10ta: 110 Suiti EFA 024,020,000 (Mg/L)	1.170	6.152	0	0.039	

Table 1 2006

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

all units expressed as mg/l unless otherwise noted:

Permit No. 02-4

		r Cilling Mo. C	12-4		
Date Sampled	01/12/06	04/14/06	07/21/06	10/24/06	S. Hadley Pretreatment Requirement
pH (grab) (S.U.) (Field)	6.43	6.81	6.97	6.76	5.5 - 9.5
oH (Grab) (S.U.) (Lab)	6.99	7.35		7.60	
Temperature (grab) (degrees C)	14.4	13.3	23.8	10.7	N/A
Biological Oxygen Demand (composite) (mg/L	1,140	143	198	130	Monitor
Chemical Oxygen Demand (composite) (mg/L	1,720	1,150	1,120	1,100	Monitor
Oil & Grease (grab) (mg/L)	NT	5.40	NT	10.0	Monitor
Cyanide (grab) (mg/L)	NT	0.0383	NT	ND	Monitor
Total Suspended Solids (composite) (mg/L)	134	36.0	68.0	86.0	Monitor Only 1500 mg/l
Ammonia (grab) (mg/L)	103	418	454	300	Monitor
Antimony (composite) (mg/L)					Monitor
Aluminum (composite) (mg/L) Arsenic (composite) (mg/L)		0.240		1.05	Monitor
Barium (composite) (mg/L)		0.0357 1.54		1.74	Monitor
Beryllium (composite) (mg/L)		1.54		1.74	Monitor
Boron (composite) (mg/L)	5.98	13.8	11.6	7.78	Monitor Monitor
Cadmium (composite) (mg/L)	ND	ND	ND.	0.0032	0.028 mg/l
Chromium (composite) (mg/L)	0.0322	0.0648	0.0576	0.0678	Monitor
Chromium, Hexavalent (grab) (mg/L)		0.250		ND	Monitor .
Copper (composite) (mg/L)		0.0776		0.210	Monitor
Lead (composite) (mg/L)	ND	ND	ND	0.0730	2.13 mg/l
Mercury (composite) (mg/L)	ND	ND	ND	ND	0.016 mg/l
Molybdenum (composite) (mg/L)		0.0053			Monitor
Nickel (composite) (mg/L)	0.0634	0.141	0.109	0.128	Monitor
Selenium (composite) (mg/L)					Monitar
Silver (composite) (mg/L)		ND			Monitor
Thallium (composite) (mg/L)					Monitor
Titanium (composite) (mg/L)		0.0970			Monitor
Zinc (composite) (mg/L)	0.0512	0.0368	ND	0.226	<u>Monitor</u>
EPA 608 total (grab) (ug/L)	NT	ND	NT	ND	Monitor
EPA 625 total (grab) (ug/L)	NT	97.7	NT	75.49	Monitor
EPA 624 total (grab) (ug/L)	10,614.50	3,638.50	37.6	2,469.7	Monitor
Total TTO sum EPA 624,625,608 (mg/L)	10.6145	3.736	0.0376	2.545	

Notes: See Table 2 for TTO Organic Analysis Breakdown by method NT = Not tested ND = Not detected mg/L = milligrams per liter ug/L = micrograms per liter Granby Landfill Start Dates:

Phase 5 Stage 2/3A approx. July 17, 1998 Phase 5 Stage 3B December 22, 1999

Phase 5 Stage 4 June 21, 2001

Stage 1B Vertical Expansion December 6, 2004

Table 2 2006

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

Total Toxic Organic Breakdown

all units expressed as mg/l unless otherwise noted:

Permit No. 02-4

Date Compled		Permit No. 0			
Date Sampled	01/12/06		07/21/06	10/24/06	
EPA 608 total (ug/l) (grab)	NT	ND	NT	ND	Heptachlor 0.003 mg/l
Heptachlor	140044.55	ND		ND	
EPA 624 total (ug/l) (grab)	10614.50	3638.50	37.6	2469.7	
Benzene					
1,1-dichloroethane				L.,	
Styrene					
1,4-dichlorobenzene					
1,3-dichlorobenzene					
1,2-dichlorobenzene					
ethylbenzene	33.0			10.3	
toluene	358	125		39.8	2.04 mg/l
trichloroethene					
trichlorofluoromethane					
total xylenes	62	71.5		36	
Tetrachloroethene					***
vinyl chloride					
methyl-t-butyl ether (MTBE)	285	128	37.6	52.6	
methylene chloride					
chloromethane			· -		· · · · · · · · · · · · · · · · · · ·
chlorobenzene		The second second			200
1,2-dichloroethane	7				
1,1,1-trichloroethane	1				
cis-1,2-dichloroethene	26.5				· · · · · · · · · · · · · · · · · · ·
2-hexanone (MBK)		· · · ·			· · · · · · · · · · · · · · · · · · ·
acetone	2,630	1,400		681	
2-butanone (MEK)	7,220	1,690		1,650	
4-Methyl-2-pentanone (MIBK)		224		-,,,,,,	
chloroethane					
EPA 625 total (ug/l) (grab)	NT	97.7	NT	75.49	
Aniline			<u> </u>		
butyl benzi phthalate	 			 -	
Acenaphthene			ļ — — ·		· · · · · · · · · · · · · · · · · · ·
Bis(2-chloroethyl) ether			 		
Flourene	- 			 	
Benzyl alcohol	 		_	 	
4-Chloro-3-methylphenol	 		 		-:
phenol	 	16.3		F 80	·
benzaic Acid	- 	10.3		5.89	·
Di-n-butylphthalate			 	 	
diethyl phthalate	+	19.6			
dimethyl phthalate		19.0			
2,4-dimethylphenol	+		<u> </u>	 -	
2-methylphenol			ļ		
					
bis(2-ethylhexyl) phthalate					
2- Methylnaphthalene	\rightarrow			<u> </u>	
naphthalene					
Isophorone					<u> </u>
3,4-methylphenol		61.8		69.6	
Total TTO sum EPA 624,625,608 (mg/L)	10.615	3.736	0.0376	2.4697	

Table 1 2005 Holyoke Sanitary Landfill, Inc. **Granby Sanitary Landfill Quarterly Leachate Pump Station Outfall**

all units expressed as mg/l unless otherwise noted: Permit No. 02-4 Date Sampled 01/12/05 | 06/03/05 | 07/14/05 | 10/13/05 | S. Hadley Pretreatment Requirements pH (grab) (S.U.) (Field) 6.7 6.10 6.25 5.5 - 9.5 pH (Grab) (S.U.) (Lab) 6.87 6.93 6.53 Temperature (grab) (degrees C) 14.6 26.0 19.1 N/A Biological Oxygen Demand (composite) (mg/L 95.5 890 780 3,230 Monitor Chemical Oxygen Demand (composite) (mg/L) 334 1,710 1,600 3,650 Monitor Oil & Grease (grab) (mg/L) NT 1.20 NT 13.8 Monitor Cyanide (grab) (mg/L) NT < 0.0100 NT <0.0100 Monitor Total Suspended Solids (composite) (mg/L) 32 228 244 344 Monitor Only 1500 mg/l Ammonia (grab) (mg/L) 345 124 39.8 107 Monitor Antimony (composite) (mg/L) Monitor

Aluminum (composite) (mg/L) < 0.0450 <0.0075 Monitor Arsenic (composite) (mg/L) < 0.0040 Monitor Barium (composite) (mg/L) 1.52 1.22 Monitor Beryllium (composite) (mg/L) Monitor Boron (composite) (mg/L) 7.26 8.6 3.94 Monitor 7.17 Cadmium (composite) (mg/L) ND 0.0038 0.0030 <0.0012 0.028 mg/l Chromium (composite) (mg/L) 0.0164 0:0318 0.0450 0.0253 Monitor Chromium, Hexavalent (grab) (mg/L) 0.034 Monitor Copper (composite) (mg/L) < 0.0025 <0.0025 Monitor Lead (composite) (mg/L) ND < 0.0038 | < 0.0200 | < 0.0038 2.13 mg/l Mercury (composite) (mg/L) 0.00024 < 0.00020 < 0.00020 < 0.00020 0.016 mg/l Molybdenum (composite) (mg/L) < 0.0025 Monitor Nickel (composite) (mg/L) 0.0649 0.0896 0.0377 0.0780 Monitor Selenium (composite) (mg/L) Monitor Silver (composite) (mg/L) Monitor Thallium (composite) (mg/L) Monitor Titanium (composite) (mg/L) Monitor Zinc (composite) (mg/L) 0.0109 0.0138 <0.0625 0.155 Monitor EPA 608 total (grab) (ug/L) NT BRL NT BRL Monitor EPA 625 total (grab) (ug/L) NT 24.8 NT 1248.5 Monitor EPA 624 total (grab) (ug/L) 622.00 4,022.50 8.609 15.229 Monitor Total TTO sum EPA 624,625,608 (mg/L) 4.047 8.609 16.478 Notes: See Table 2 for TTO Organic Analysis Breakdown by method

NT = Not tested ND = Not detected mg/L = milligrams per liter ug/L = micrograms per liter Granby Landfill Start Dates:

Phase 5 Stage 2/3A approx. July 17, 1998

Phase 5 Stage 3B December 22, 1999

Phase 5 Stage 4 June 21, 2001

Stage 18 Vertical Expansion December 6, 2004

Table 2 2005

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

Total Toxic Organic Breakdown

all units expressed as mg/l unless otherwise noted:

Permit No. 02-4

all units expressed as mg/l unless otherwise noted:		Permit No. U.	2-4		
Date Sampled	01/12/05	06/03/05	07/14/05	10/13/05	
EPA 608 total (ug/l) (grab)	NT	BRL	NT	BRL	Heptachlor 0.003 mg/l
	i i				respective close ingli
EPA 624 total (ug/l) (grab)	622.00	4022.50	7829	15229	
Benzene					***
1,1-dichloroethane					
Styrene	1	12.0			
1,4-dichlorobenzene					
1,3-dichlorobenzene	1				
1,2-dichlorobenzene	1				\\\\\
ethylbenzene	14.2	29.7			
toluene	10.5	290	135	116	2.04 mg/i
trichloroethene					
trichlorofluoromethane	1	43.3			
total xylenes	10.2	103.5	<u> </u>		
Tetrachioroethene				 	
vinyl chloride			<u> </u>	 	
methyl-t-butyl ether (MTBE)	38.1	270	177	193	
methylene chloride		833	326		
chloromethane					
chlorobenzene	1				
1,2-dichloroethane			f+		
1,1,1-trichloroethane		****			
cis-1,2-dichloroethene	1				
2-hexanone (MBK)					
acetone	245	531	2,560	4,120	
2-butanone (MEK)	304	1,910	4,470	10,800	
4-Methyl-2-pentanone (MIBK)		/	161	1,	
chloroethane					
EPA 625 total (ug/l) (grab)	NT	24.8	NT-		·
Aniline		-			
butyl benzi phthalate					
Acenaphthene				 	
Bis(2-chloroethyl) ether	<u> </u>				· · · · · · · · · · · · · · · · · · ·
Flourene	 		†- ·	 	
Benzyl alcohol	 	<u> </u>		 	
4-Chloro-3-methylphenol	1			 	
phenol	1	11.9		 	
benzoic Acid	1	1	1	1	
Di-n-butylphthalate	1			1	
diethyl phthalate				1 1	
dimethyl phthalate	1				
2,4-dimethylphenol	1	-	1	 	
2-methylphenol	1	†	 	 	
bis(2-ethylhexyl) phthalate	 		 	 	
2- Methylnaphthalene			<u> </u>	 	
naphthalene	1	 	<u> </u>	 	·
Isophorone	1				
3,4-methylphenol	i	12.9	1	 -	·····
Total TTO sum EPA 624,625,608 (mg/L)	0.622	4.047	8.609	15.229	

		Table 1 200	4		
		Holyoke Sa	nitary Land	ifill, Inc	
		Granby San	itarv Land	fill Quarterl	v I eachate
		•	-	in don ter	y Leachate
		Pump Static			•
all units expressed as mg/l unless otherwise noted:		Permit No. (2-4		
Date Sampled	01/30/04	04/13/04	07/15/04	10/07/04	S. Hadley Pretreatment Requirements
pH (grab) (S.U.) (Field)	7.1	6.5	7.09	6.67	
pH (Grab) (S.U.) (Lab)		0.0	7.09	6.97 7.25	5.5 - 9.5
Temperature (grab) (degrees C)	16.6	16.7	22.6	23.9	
remperature (grab) (degrees C)	10.6	16.7	22.6	23.9	N/A
Biological Oxygen Demand (composite) (mg/L	144	85.6	72.8	71.4	Monitor
		-			isiorii (or
Chemical Oxygen Demand (composite) (mg/L	971	626	687	683	Monitor
Oil & Grease (grab) (mg/L)	NT	17.1	NT	< 1.00	Monitor
Cyanide (grab) (mg/L)	NT	0.0504			
Cyanide (grab) (mg/L)	NI	0.0581	NT	< 0.0100	Monitor
Total Suspended Solids (composite) (mg/L)	28.0	24.0	70.0	48.0	M
Total Caspenaca Bolida (composite) (mg/L)	20.0	24.0	70.0	46.0	Monitor Only 1500 mg/l
Ammonia (grab) (mg/L)	312	184	433	289	Monitor
	-	- 10-7	700	200	Monitor
Antimony (composite) (mg/L)					Monitor
Aluminum (composite) (mg/L)		0.115		< 0.0525	Monitor
Arsenic (composite) (mg/L)		< 0.0055		0.0168	Monitor
Barium (composite) (mg/L)		0.602		0.706	Monitor
Beryllium (composite) (mg/L)					Monitor
Boron (composite) (mg/L)	12.3	6.84	13.2	8.68	Monitor
Cadmium (composite) (mg/L)	<0.0012	<0.0012	<0.0025	< 0.0012	0.028 mg/l
Chromium (composite) (mg/L)	0.0165	0.0102	0.0458	0.0191	Monitor
Chromium, Hexavalent (grab) (mg/L)		<0.025		<0.010	Monitor
Copper (composite) (mg/L)		0.0031		< 0.0025	Monitor
Lead (composite) (mg/L)	<0.0038	<0.0038		< 0.0038	2.13 mg/l
Mercury (composite) (mg/L)	<0.00040		<0.00020		0.016 mg/l
Molybdenum (composite) (mg/L)		<0.0025		< 0.0025	Monitor
Nickel (composite) (mg/L)	0.0936	0.0518	0.145	0.0715	Monitor
Selenium (composite) (mg/L)					Monitor
Silver (composite) (mg/L)	ļ <u> </u>	0.0182		< 0.0050	Monitor
Thallium (composite) (mg/L) Titanium (composite) (mg/L)		0.045		2 224	Monitor
Zinc (composite) (mg/L)	0.125	0.015	0.457	0.031	Monitor
Enic (composite) (mg/L)	0.123	0.0338	0.157	0.0116	Monitor
EPA 608 total (grab) (ug/L)	NT	BRL	NT	BRL	Monitor
1311-3-1				DIL	MOIIIO
EPA 625 total (grab) (ug/L)	NT	25.9	NT	BRL	Monitor
EDA 624 Actol (cook) (cod)	4 404 55				
EPA 624 total (grab) (ug/L)	1,184.70	3,095.00	2,476.20	310.60	Monitor
Total TTO sum EPA 624,625,608 (mg/L)	1.1847	3.1209	2.4762	0.3106	
				3.0.00	

Notes: See Table 2 for TTO Organic Analysis Breakdown by method NT = Not tested ND = Not detected mg/L = milligrams per liter ug/L = micrograms per liter Granby Landfill Start Dates:

Phase 5 Stage 2/3A approx. July 17, 1998

Phase 5 Stage 3B December 22, 1999

Phase 5 Stage 4 June 21, 2001

Stage 1B Vertical Expansion December 6, 2004

Table 2 2004

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

Total Toxic Organic Breakdown

all units expressed as mg/l unless otherwise noted:

Permit No. 02-4

Date Sampled	01/30/04		07/15/04	10/07/04	
EPA 608 total (ug/l) (grab)	NT	BRL	NT	BRL	Heptachlor 0.003 mg/l
EPA 624 total (ug/l) (grab)	4404 70	2005.00	0470.00		
	1184.70	3095.00	2476.20	310.60	
Benzene	 	·	3.2	3.6	
1,1-dichloroethane					
1,4-dichlorobenzene			5.4	6.4	
1,3-dichlorobenzene					
1,2-dichlorobenzene	- 				
ethylbenzene	8.80	39.0	3.6	13.8	
oluene	13.8	71.0	. 8.8	7.5	2.04 mg/l
richloroethene	++				
trichlorofluoromethane	 	100.0			
otal xylenes	38.6	100.8	28.7	38.7	(Marine)
Tetrachloroethene	+	<u> </u>			
vinyl chloride	 				
methyl-t-butyl ether (MTBE)	79.5	74.2	62.5	44.8	
methylene chloride	1	,-			
chloromethane	+				
chlorobenzene			2.3		
1,2-dichloroethane					
1,1,1-trichloroethane					
cis-1,2-dichloroethene	-		1.1		
2-hexanone (MBK)			1 1		
acetone	395	1,390	1,080	103	
2-butanone (MEK)	649	1,420	1,250	92.8	
4-Methyl-2-pentanone (MIBK)			26.8		
chloroethane			3.8		
EPA 625 total (ug/l) (grab)	NT	25.9	NT	BRL	
Aniline					
butyl benzi phthalate					
Acenaphthene					
Bis(2-chloroethyl) ether					
Flourene					
Benzyl alcohol					
4-Chloro-3-methylphenol					——————————————————————————————————————
phenol					
benzoic Acid					
Di-n-butylphthalate					
diethyl phthalate	1				
dimethyl phthalate		`			
2,4-dimethylphenol	1				· · · · · · · · · · · · · · · · · · ·
2-methylphenol	1				
bis(2-ethylhexyl) phthalate	1				
2- Methylnaphthalene					
naphthalene	++	15.1			
Isophorone	1	10.1			
4-methylphenol	 	10.8		****	
Total TTO sum EPA 624,625,608 (mg/L)	1.1847	3.1209	2.4762	0.3106	÷

Table 1 2003

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

ill units expressed as mull unless otherwise noted:

Permit No. 02-4

	Permit No				
01/07/03	04/10/03	07/29/03	10/02/03		S. Hadley Pretreatment Requirement
6.7	6.9	6.8	6.9		5.5 - 9.5
—					0.0 - 3.0
13.1		24.0	20.8	·	N/A
10	10.0	24.0	20.0		- IVA
140	150	140	141		Monitor
640	640	789	650		Monitor
NT	11	NT	<1.00		Monitor
			11.00		Monitor
1					Monitor
NT	<0.01	NT	NT		Monitor
48.0	44	56.0	195		Monitor Only 1500 mg/l
240	300	200	20.0		
210	200	380	29.0		Monitor
·					Monitor
 	<0.031		<0.650		Monitor
1			~0.030		Monitor
 			0.729		Monitor
	0.044		0.750		Monitor -
6.87	5.68	10.5	5 77		Monitor
					0.028 mg/l
					Monitor
0.0100		0.0217		The land	Monitor
+					Monitor
0.0075		<0.0650			2.13 mg/i
					0.016 mg/l
10.0001		-0.0004	~0.00040		Monitor
0.0624		0.124	0.0642		Monitor
0.002-7	0.0014	0.124	0.0042		Monitor
 	<0.005				Monitor
 	10.003				Monitor
 	0.01				Monitor
0.0702		<0.0650	0.104		Monitor
0.0702	U.UE-14	*0.0000	0.134		Monitor
NT	ND	NT	ND		Monitor
NT	123	NT	NO		No.:
"	133	191	ND.	 	Monitor
2,336.6	1,321	ND	1,599.6		Monitor
2.334	1 454	0	1 550		
	6.7 13.1 140 140 NT NT 48.0 210 6.87 <0.00125 0.0138 0.0075 <0.0004 NT NT	01/07/03 04/10/03 6.7 6.9 7.3@19.6 13.1 19.8 140 150 640 640 NT 11 8 NT <0.01 48.0 44 210 200 <0.014 0.844 6.87 5.68 <0.00125 <0.00125 0.0138 0.0111 <0.14 0.844 6.87 5.68 <0.00125 <0.00125 0.0138 0.0111 <0.15 0.014 0.005 0.005 0.004 0.005 0.005 0.005 0.005 0.004 0.005 0.001 0.0702 0.0244 NT ND NT 133	01/07/03	01/07/03	01/07/03 04/10/03 07/29/03 10/02/03 6.7 6.9 6.8 6.9 7.3@19.6 13.1 19.8 24.0 20.8 140 150 140 141 640 640 789 650 NT 11 NT <1.00 8 NT <0.01 NT NT 48.0 44 56.0 195 210 200 380 29.0 <0.031 <0.650 <0.014 0.844 0.738 6.87 5.68 10.5 5.77 <0.00125 <0.00125 <0.0012 0.0138 0.0111 0.0217 0.0138 0.0111 0.0217 0.0138 0.025 <0.0025 0.0120 0.0004 <0.0004 <0.0004 <0.0005 0.0624 0.0514 0.124 0.0642 NT ND NT ND NT 133 NT ND

Notes: See Table 2 for TTO Organic Analysis Breakdown by method NT = Not tested ND = Not detected mg/L = milligrams per liter ug/L = micrograms per liter Granby Landfill Start Dates;

Granby Landfill Start Dates: Phase 5 Stage 2/3A approx. July 17, 1998 Phase 5 Stage 3B December 22, 1999 Phase 5 Stage 4 June 21, 2001 Table 2 2003

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

Total Toxic Organic Breakdown

Permit No. 02-4

all units expressed as mg/l unless otherwise noted:		Permit No	. 02-4				
Date Sampled	01/07/03	04/10/03	07/29/03	10/03/03	· · · · · · · · · · · · · · · · · · ·		
EPA 608 total (ug/l) (grab)	NT	ND	NT	ND			Heptachlor 0.003 mg/l
							t topication otogo mg/
EPA 624 total (ug/l) (grab)	2336.6	1,321	ND	1,559.6			Targetti (1900)
benzene	5.6						
1,1-dichloroethane							
1,4-dichlorobenzene	11						3
1,3-dichlorobenzene							
1,2-dichlorobenzene							
ethylbenzene	35	31		5.60			
toluene	110	90		21.2		-	2.04 mg/l
trichloroethene							2.04 mg/l
trichlorofluoromethane					·		
total xylenes	74	_	-	36.1			
Tetrachloroethene					-:-		
vinyl chloride							
methyl-t-butyl ether (MTBE)	110	100		71.7			
methylene chloride							
chloromethane							
chlorobenzene							
1,2-dichloroethane		- ***					
1,1,1-trichloroethane							<u> </u>
cis-1,2-dichloroethene							
2-hexanone (MBK)							
acetone	810		<u> </u>	658			
2-butanone (MEK)	1,100	1,100		767			
4-Methyl-2-pentanone (MIBK)	81	1,100		,,,,	-		
chloroethane			****				
EPA 625 total (ug/l) (grab)	NT	133	NT	ND			
Aniline	141	100	141	IND			
butyl benzi phthalate							
Acenaphthene							
Bis(2-chloroethyl) ether	ļ	·					
	<u> </u>						
Flourene							**************************************
Benzyl alcohol		_					
4-Chloro-3-methylphenol							
phenol							
benzoic Acid							
Di-n-butylphthalate							
diethyl phthalate		6.2					
dimethyl phthalate		· · · · · ·					
2,4-dimethylphenol							
2-methylphenol							
bis(2-ethylhexyl) phthalate				·			
2- Methylnaphthalene			·	,			
naphthalene		6.8					
Isophorone							
4-methylphenol		120					
Total TTO sum EPA 624,625,608 (mg/L)	2.334	1.454	0.000	1.559			

Table 1 2000-2002

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

all units expressed as mg/l unless otherwise noted:

an quite exhiesed as high diness otherwise noted																
Date Sampled	02/10/00	05/11/00	08/09/00	10/17/00	11/30/00	12/08/00	01/17/01	04/19/01	08/01/01	10/23/01	10/24/01	01/03/02	05/01/02	08/08/02	11/05/02	S. Hadley Pretreatment Requirements
pH (grab) (S.U.)	7.0	6.0	6.2	6.4	6.5	6.3	6.9	6.5	 _	4.7*		1				Saut Control of the C
pH (Lab) (pH Units)	1.0	0.0	0.2	0.4	0.3	- 0.3	0.9	6.5	6.5	4./*	6.8	6.5	6.6	7.0	7.25	5.5 - 9.5
Temperature (grab) (degrees C)	12.5	17.1	20.0	15.0	40.0	40.0	40.0							7.26@14.4		
Temperature (grab) (degrees C)	12.5	17.1	20.0	15.0	19.0	12.0	13.0	15.5	22.0	18.2		16.9	20.0	27.3	12.0	N/A
Biological Oxygen Demand (composite) (mg/L	122	>2.000	>3600	 		4050							L			
biological Oxygen Demand (composite) (mg/L	122	72,000	23000	 		4,650	2,210	1,770	1,350	629		494	400	190	370	monitor
Chemical Oxygen Demand (composite) (mg/L		5 600	0.000	 												
Chemical Oxygen Demand (composite) (mg/L	770	5,600	6,900		7,000		4,400	2,700	1,800	1,100	1	860	1,000	780	1,000	monitor
00.0																
Oil & Grease (grab) (mg/L)	1.8	6.8	9.4		9.4		2	2.4	<1.0	<1.0		5	<1	7.2	<1	monitor
				1												THO MICH
Cyanide (grab) (mg/L)	<0.01	NT	<0.01		NT		· ·	<0.01		<0.01		T .	<0.01	NT	<0.01	monitor
	<u></u>														10.01	monitor
Total Suspended Solids (composite) (mg/L)	15.0	170	78.0		520		440	140	150	160		180	430	250	150	1500 ppm
**												1	700	200	130	1500 ppm
Ammonia (composite) (mg/L)	170	220	200		310		170	210	220	275.5	 	85	240	340	380	
the state of the s								1		2.0.0	 	- 63	240	340	300	
Antimony (composite) (mg/L)	<0.015		<0.030				-	<0.0075	 -		 	 	<0.012	<u> </u>	·	
Aluminum (composite) (mg/L)	0.131	0.848	0.903	 	1.93		1.51	0.236	<0.270	0.182	 	0.484		0.405		monitor
Arsenic (composite) (mg/L)	<0.015	0.0.0	<0.030		1.00		1.51	<0.0075	V0.270	<0.004	 	0.484	0.535	0.187	1.70	monitor
Barium (composite) (mg/L)	1 : 11		0,000	 				1.47	1	1.44	 	 	<0.0075		0.0285	monitor
Beryllium (composite) (mg/L)	<0.005	<u> </u>	<0.005				<u> </u>	<0.0013		1.44	 	 	2.53		1.03	monitor
Boron (composite) (mg/L)		6.32	8.90	 	13.4 -		10.4	7.60	7.97	6.76	 		<0.001			monitor
Cadmium (composite) (mg/L)	<0.005	<0.005	0.00	<0.0125	0.0120		<0.0013	0.0030	0.0049	0.0030		2.15	7.70	9.69	8.73	monitor
Chromium (composite) (mg/L)	0.022	0.0490	0.0477	-0.0125	0.0514		0.0307	0.0264	0.0206	0.0030	 -	0.0081	0.0041	<0.0013	<0.00125	0.028 mg/l
Chromium, Hexavalent (composite) (mg/L)	≤0.1	0.0.00	<0.10		0.00 (11)		0.0307	<0.10	0.0206	0.055		0.0201	0.0242	0.0191	0.0044	monitor
Copper (composite) (mg/L)	<0.005	0.0495	0.0257	1	0.0220			0.0077		0.0026			<0.25			monitor
Lead (composite) (mg/L)	<0.010	<0.015	0.0350	 	0.0397		0.0068	<0.0077	<0.0075		 	-0.0000	0.0350		0.0322	monitor
Mercury (composite) (mg/L)	<0.0004	<0.0004	<0.0004		<0.0004		<0.0004	<0.0038	<0.0075			<0.0038	0.0219	<0.0038	<0.00375	2.13 mg/l
Molybdenum (composite) (mg/L)	<0.005	- 40.0004	-90.0004		~0.0004		~0.0004	0.0034	<0.0004	<0.0004		<0.0004	<0.0004	<0.0004	<0.0004	0.016 mg/l
Nickel (composite) (mg/L)	0.071	0.321	0.214		0.193		0.111	0.0034	0.0891	0.0770	 	0.0070	0.0086			monitor
Selenium (composite) (mg/L)	<0.015	0.021	0.2.17	 	0.133		0.111	<0.0075	0.0691	0.0770		0.0379	0.0735	0.0902	0.0817	monitor
Silver (composite) (mg/L)	<0.010			1				0.0838	 		ļ	 	<0.025		<u> </u>	monitor
Thallium (composite) (mg/L)	<0.015			-		_		<0.0075					<0.005	ļ		monitor
Titanium (composite) (mg/L)	0.04			-				0.0075		 			<0.015			monitor
Zinc (composite) (mg/L)	0.038	8.23	6.80	 	3.25		2.64	0.0254	0.495	0.044		1	0.028			monitor
Earle (composito) (mg/E)	0.000	0.20	0.00	 	3.23		2.04	0.5/1	0.495	0.241	 	0.640	0.578	0.0364	0.390	monitor
EPA 608 total (grab) (ug/L)	ND	ND	ND		ND			ND	-	ND	 		ND	NT	ND	monitor
														 	 - : • -	Indition
EPA 625 total (grab) (ug/L)	50.0	979.0	10.0		2028.0		1377	817.8	1162.0	1010.0		427.3	293.3	2563	311.3	monitor
	ļ														1	
EPA 624 total (grab) (ug/L)	951.4	5749.7	15290.2		16,395		16,024.20	9,389.50	2,878.00	9,099.00		10,280.00	5,574.10	ND	5,177.0	monitor
Total TTO sum EPA 624,625,608 (mg/L)	4 0044	0.7007	45 0000	1												
10tal 110 Sum EFA 024,025,008 (Mg/L)	1.0014	6.7287	15.3002	1	18.423		17.4012	10.2073	4.04	10.109		10.7073	5.8674	2.563	5.488	

Notes: See Table 2 for TTO Organic Analysis Breakdown by method NT = Not tested ND = Not detected mg/L = milligrams per liter ug/L = micrograms per liter Granby Landfill Start Dates:

Phase 5 Stage 2/3A approx. July 17, 1998

Phase 5 Stage 3B December 22, 1999

Phase 5 Stage 4 June 21, 2001

^{*} The pH meter inadvertently gave a felse reading on October 23, 2001. The pH field measurement was redone on October 24, 2001 to confirm the false pH reading.

Table 2 2000-2002

Holyoke Sanitary Landfill, Inc

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

Total Toxic Organic Breakdown

all units expressed as mg/l unless otherwise note:

Date Sampled	22/12/22										٠,						
				10/17/00		12/08/00		04/19/01	08/01/01	10/23/01	01/03/02	05/01/02	08/08/02	11/05/02		W-77	
EPA 608 total (ug/l) (grab)	ND	ND	ND		ND_		NT	ND	NT	ND	NT	ND	NT	ND	 		
		\longrightarrow													+		
EPA 624 total (ug/l) (grab)	951.4	5749.7	15290.2		16,395		16,024.20	9,389.50	2,878.00	9.099.00	10,280.00	5,574.10	2,563	5,177.00			
benzene	9.9	5,8	6.9				6.9			5.9		7.9		0,177.00			
1,1-dichloroethane		11	12				9.9					7.5			 		
1,4-dichlorobenzene	13	3.9					14			9,1		6.9			+		
1,3-dichlorobenzene												6.9			 		
1,2-dichlorobenzene						2		8.9				1.5			 		
ethylbenzene	74		40		65		44			34		35			L		
toluene	120	280	200		230		210										
trichloroethene		16	28				6.4			110	340	2.6		62	4		
trichlorofluoromethane	35	8.7					2.3					2.6	 				
total xylenes	223	80			130		152			100				· · · · · · · · · · · · · · · · · · ·			
Tetrachloroethene		11		-			2.5		 	100		105					
vinyl chloride		13	5.4				7.2					1.4					
methyl-t-butyl ether	100	160			170		160					12					
methylene chloride		190	280		- 1/0		88			120	340	290	150	. 84			
chloromethane		,	5.1		-		- 88	90	ļ								
chlorobenzene	6.9		3.1				لـــــــــــــــــــــــــــــــــــــ					1.4					
1,2-dichloroethane	0.6							2.0	 							-	
1,1,1-trichloroethane	14	- 50					. 3						L				
cis-1,2-dichloroethene	5.6			<u>-</u>								,					
	5,6	12					21	12				25					
Z-nazanone (MBN)												15	6.8				
acetone		2,100	5,700		6,700		6,000			4,600	5,700	2,100	1,000	2,200			
2-butanone (MEK)	350	2,700	8,600		9,100		8,900		2,600	3,900	3,900	2,500					
4-Methyl-2-pentanone		130	280				400	190		220		140			<u> </u>		
chloroethane chloroethane		10	15					5.4				16					
EPA 625 total (ug/l) (grab)	50	979	10		2028		1377	817.8	1162	1010	427.3	293.3	ND	311.3			
Aniline					26										 		
butyl benzi phthalate																	
Acenaphthene														6.0	 		
Bis(2-chloroethyl) ether														5.6			
Flourene								-									
Benzyl alcohol		110												5.2			
4-Chloro-3-methylphenol									 					6,2			
phenol		94			260			50		220	97	25		13			
benzoic Acid								30		220	9/	25		71			
Di-n-butylphthalate		11	10								<u> </u>				 		
diethyl phthalate		480			140		120	100	49	43					 		
dimethyl phthalete		10			40		120	100	49	43	25	8.3	<u> </u>	24			
2,4-dimethylphenol	5.6	- '9															
2-methylphenol	3.0	13			15			 		<u> </u>							
bis(2-ethylhexyl) phthalate		<u>'3</u>			15			لسنسا	⊢——								
2- Methylnaphthalene		_ 						├ ──	⊦	· · · · · · · · · · · · · · · · · · ·	5.3						
naphthalene	12							└─ ─	├ ──					6.3			
Isophorone	5.4				11		17		13	17	10			14			
	27	21			76		40		<u> </u>								
4-methylphenol		240			1,500		1,200	660	1,100	730	290	260		160			
Total TTO sum EPA 624,625,608 (mg/L)	1.001	6.729	15.300		18.423		17.401	10.207	4.040	10.109	10.707	5.8674	2.563				

Table 1 1997-1999

Holyoke Sanitary Landfill, Inc.

Granby Sanitary Landfill Quarterly Leachate

Pump Station Outfall

ill units expressed as mg/l unless otherwise noted:

D-1-01-1	T	P		,													
Date Sampled	02/06/97	04/08/97	06/10/97	08/05/97	10/07/97	12/05/97	02/24/98	04/07/98	06/09/98	08/06/98	10/06/98	12/31/98	02/09/99	05/06/99	08/11/99	11/16/99	S. Hadley Pretreatment Requirements
pH (grab) (S.U.)	7.8	6.3	6.8	6.7	6.9					<u> </u>							
Temperature (grab) (degrees C)	5.3	9.5	16.5	23.5		NT	7.21	7	6.65	6.8	7.2	6.8	7.4	7	7.5	7.0	5.5 - 9.5
remperature (grab) (degrees C)	5.5	3.5	10.5	23.5	19.6	NT	9.1	10	20	30	23.5	13	17.9	19.6	27	16.5	N/A
Biological Oxygen Demand (composite) (mg/L)	530	1132	2000	1510	4700	4400											
Distrigues Oxygen Demand (composite) (mg/L)	330	1132	2000	1510	1780	1400	900	210	710	220	1400	130	1,500	144	108	124	monitor
Chemical Oxygen Demand (composite) (mg/L)	976	2230	3330	0440													
Chemical Oxygen Demand (composite) (mg/L)	3/6	2230	3330	3110	2710	2500	2200	620	1200	930	1500	910	1,500	971	1,160	829	monitor
Oil & Grease (grab) (mg/L)	<0.5	7.6		40													
Oir & Crease (grab) (mg/L)	~0.5	7.0	11	13	<0.5	<5.0	<5.0	<5.0	5.5	<5.0	<5.0	<5.0	50	9	7.7	<5.0	monitor
Cyanide (grab) (mg/L)	<0.01	<0.01	0.040														
Cyanide (grab) (mg/c)	\0.01	₹0.01	0.018	0.01	0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.020	<0.020	<0.020	NT	<0.01	NT	monitor
Total Suspended Solids (composite) (mg/L)	35	211	240	494	470												
Total Gaspended Gollos (Composite) (Ingr.)	33	211	218	171	478	260	280	102	140	120	260	190	250	110	76	120	1500 ppm
Ammonia (composite) (mg/L)	<u> </u>		<u> </u>														
Attitionia (composite) (mg/c)	 		<u> </u>											900	382	290	
Antimony (composite) (mg/L)	<0.006	<0.006	<0.006	-0.00C	-0.00=												
Aluminum (Composite) (mg/L)	0.206	<0.050	0.137	<0.006	<0.006	<0.479	<0.020	<0.010	<0.005	<0.01	<0.010	<0.005	<0.010		<0.015		monitor
Arsenić (composite) (mg/L)	<0.010	<0.050	<0.010	<0.050	0.4	0.846	0.709	0.214	1.04	0.798	0.377	0.411	0.037	0.088	0.146	0.303	monitor
Barium (composite) (mg/L)	~0.010	~0.010	<0.010	0.017	0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005		0.026		monitor
Beryllium (composite) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	not tested	-0.005									monitor
Boron (composite) (mg/L)	30.001	70.001	~0.001	~0.001	~0.001	~u.005	not tested	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005		<0.005		monitor
Cadmium (composite) (mg/L)	0.0052	0.0087	0.0211	0.0081	0.0152	<0.01	<0.005	<0.005	<0.005	10.04	-0.005			8.45	9.84	7.26	monitor
Chromium (composite) (mg/L)	0.006	0.01	0.017	0.036	0.036	0.045	0.026	0.016	0.016	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.028 mg/l
Chromium, Hexavalent (composite) (mg/L)	0.05	<0.020	0.05	<0.010	<0.010	<0.010	<0.10	<0.016	<0.20	0.015 <0.02	0.032	0.025	0.021	0.02	0.026	0.023	monitor
Copper (composite) (mg/L)	0.069	0.148	0.195	0.014	0.02	0.047	0.086	0.025	<0.005	<0.02	<0.020 <0.005	<0.10	<0.020		<0.04		monitor
Lead (composite) (mg/L)	0.007	0.001	0.007	0.009	0.001	0.008	<0.005	<0.025	<0.010	<0.005	<0.005	<0.005 <0.005	<0.005	<0.005	<0.005	<0.005	monitor
Mercury (composite) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	0.026	0.084	<0.010	<0.010	2.13 mg/l
Molybdenum (composite) (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.05	<0.05	<0.05	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.016 mg/l
Nickel (composite) (mg/L)	0.024	0.047	0.071	0.12	0.11	0.008	0.062	0.047	0.04	0.028	0.05	0.005	0.034	<0.005	0.114		monitor
Selenium (composite) (mg/L)	<0.010	0.027	0.067	<0.010	<0.010	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	0.114	0.08	monitor
Silver (composite) (mg/L)	<0.010	<0.010	<0.010	< 0.010	<0.010	<0.02	<0.010	<0.010	<0.01	<0.02	<0.003	<0.003	<0.010				monitor
Thallium (composite) (mg/L)	<0.001	0.001	<0.001	< 0.001	< 0.001	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.005	<0.005				monitor
Titanium (composite) (mg/L)										0.000	-0.000	-0.000	×0.003		0.06		monitor
Zinc (composite) (mg/L)	1.06	0.205	0.422	0.66	0.48	0.43	0.206	0.054	0.076	0.136	0.091	0.054	0.084	0.034	0.035	0.03	monitor
												0.001	0.007	0.004	0.033	0.03	monitor
EPA 608 total (grab) (ug/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	monitor
															140	NO	monitor
EPA 625 total (grab) (ug/L)	49	1504	1125	3534	526	138	408	68	ND	186	863	416	654	258	25	135.8	monitor
														200	2.0	133.0	monitor
EPA 624 total (grab) (ug/L)	291	973	1498	872	1171.2	418.4	1023.6	223	521.6	544	873.9	558	938	692	471	329.4	monitor
																323.4	HIOTHO
Total TTO sum EPA 624,625,608 (mg/L)	0.34	2.477	2.623	4.406	1.697	0.5564	1.4316	0.291	0.5216	0.73	1.7369	0.974	1,592	0.95	0.496	0.4652	
								•		*************************************					0.700	_ J.TUJE	

Table 2 1997-1999
Holyoke Sanitary Landfill, Inc.
Granby Sanitary Landfill Quarterly Leachate
Pump Station Outfall
Total Toxic Organic Analysis Breakdown

all units expressed as mg/l unless otherwise noted:

Date Sampled	02/06/97	04/08/97	06/10/97	08/05/97	10/07/97	12/05/98	02/24/98	04/07/00	00/00/00								
EPA 608 total (ug/l) (grab)	ND	ND	ND ND	ND	ND	ND									08/11/99	11/16/99	The second secon
			. ND		NU	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
EPA 624 total (ug/l) (grab)	291	973	1498	872	1171.2	418.4	4000.0										
benzene	22	12		0/2		410.4	1023.6	223	521.6	544	873.9	558	938	692	471	329.4	
1,1-dichloroethane	19				11 7.8		13		9.5	11	12		13		. 11	6.4	
1,4-dichlorobenzene		91			7.8		28		18		11		14				
1,3-dichlorobenzene							9.6	. 14	13		12	17	13		13	8	
1,2-dichlorobenzene		-											13				
ethylbenzene	24	52	77		75	22	77		1.3								
toluene	33	504	740	519	. 560					49	84			- 00			
trichloroethene	37	24	7.10	- JIB	4.4	9.4			200	270	390	95	400	290	120	80	
trichlorofluoromethane	11				4,4	9.4	21		8.8		6.9		16				
total xylenes	77	177	226	125	251	62	63	81									
Tetrachloroethene				125	. 201	- 02	03	81	71	123	258	240	261	253	197	125	
vinyl chloride	11	17	43		21		22										
methyl-t-butyl ether	57	150		228	230	150				-		15					
methylene chioride	1	91		- 220	230	36	210	31	100	91	100	89	110	66			
chloromethane						- 30	400								a die		
chlorobenzene							180								्रे प्रश	35.5	
1,2-dichloroethane									4.3			5					
1,1,1-trichioroethane					—				1.8								
cis-1,2-dichloroethene			-														
acetone					···-												
2-butanone (MEK)																	
4-Methyl-2-pentanone																	
chloroethane		20															
EPA 625 total (ug/l) (grab)	49	1504	1125	3534	526	138	408	68	ND	186							
Aniline						100	_ +00	- 00	ND	106 -	863	416	654	258	25	135.8	*
butyl benzi phthalate																	
Benzyl alcohol							<u> </u>	· · ·					18				
phenol		38	68		40	36											
benzoic Acid		1120	00	1160	40	36	71				71		62	13			
Di-n-butylphthalate		1120		1100													
diethyl phthalate		16	31	24													
dimethyl phthalate		10		24	16	11	77				19		34	15			
2,4-dimethylphenol			26														
2,4-dimetryiphenoi 2-methylphenoi																7.2	
2-metnyiphenoi bis(2-ethylhexyl) phthalate	19		740			60											
						31		68									
naphthalene										16	13	16		20	12	8.6	
															12	0.0	
Isophorone									1	1	ŀ	- 1		1			
Isophorone 4-methylphenol Total TTO sum EPA 624,625,608 (mg/L)	30 0.340	330 2.477	260 2.623	2350 4.406	470 1.697	0.556	260 1,432	0.291	0.522	170	760	400	540	210	13	120	

STL

STL Buffalo 10 Hazelwood Drive, Suite 106 Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991 www.stl-inc.com

ANALYTICAL REPORT

Job#: <u>A07-B418</u>

Project#: NY5A5834.5

Site Name: Granby Landfill

Task: Quarterly Discharge Monitoring -

Todd Donze Environmental Compliance Svcs. 588 Silver Street Agwam, MA 01001

CC: Tom Heaton

STL Huffalo

Jason R. Kacalski Project Manager

10/19/2007

STL Buffalo Current Certifications

As of 5/16/2007

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA, NELAP CWA, RCRA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
lowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	NELAP SDWA, CWA, RCRA	NY455
New York	NELAP AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA,RCRA	C1677
West Virginia	CWA,RCRA	252
Wisconsin	CWA, RCRA	998310390

SAMPLE SUMMARY

				SAMPI	ED	RECEIVE	⊡
LAB SAMPLE ID	CLIENT	SAMPLE ID	MATRIX	DATE	TIME	DATE	TIME
A7B41801	COMP-1					10/06/2007	
A7B41802	COMP-2					10/06/2007	
A7B41803	COMP-3		LEACH	10/05/2007	09:35	10/06/2007	09:00
A7B41804	GRAB-1		LEACH	10/05/2007	10:42	10/06/2007	09:00
A7B41805	GRAB-2		LEACH	10/05/2007	10:42	10/06/2007	09:00
A7B41806	GRAB-3		LEACH	10/05/2007	10:42	10/06/2007	09:00
A7B41807	TRIP BLAN	IK .	WATER	10/05/2007		10/06/2007	09:00

METHODS SUMMARY

Job#: <u>A07-B418</u>

Project#: <u>NY5A5834.5</u> Site Name: <u>Granby Landfill</u>

PARAMETER	ANALYTICAL METHOD
METHOD 624 - Waste Water Volatiles	CFR136 624
METHOD 625 - Quarterly WW BNA's	CFR136 625
Aluminum - Total Barium - Total Boron - Total Cadmium - Total Chromium - Total Copper - Total Lead - Total Mercury - Total Nickel - Total Zinc - Total	MCAWW 200.7 MCAWW 245.1 MCAWW 200.7 MCAWW 200.7 MCAWW 200.7 MCAWW 200.7
Ammonia Biochemical Oxygen Demand Chemical Oxygen Demand Hexavalent Chromium - Total Oil & Grease pH Total Suspended Solids	MCAWW 350.1 * SM20 5210B MCAWW 410.4 SM20 3500-CR B MCAWW 1664 SM20 4500-H+ B SM20 2540D

References:

Guidelines Establishing Test Procedures for the Analysis of Pollutants
Under the Clean Water Act, and Appendix A-C; 40 CFR Part 136, USEPA Office
of Water.

MCAWW

"Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar
1983) with updates and supplements EPA/600/4-91-010 (Jun 1991), EPA/600/R-

92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993)

SM20 "Standard Methods for the Examination of Water and Wastewater", 20th Edition.

* Ammonia and/or Fluoride were not distilled prior to analysis.

SDG NARRATIVE

Job#: <u>A07-B418</u>

Project#: NY5A5834.5

Site Name: Granby Landfill

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-B418

Sample Cooler(s) were received at the following temperature(s); 2@2.0 °C All samples were received in good condition.

GC/MS Volatile Data

No deviations from protocol were encountered during the analytical procedures.

GC/MS Semivolatile Data

No deviations from protocol were encountered during the analytical procedures.

Metals Data

No deviations from protocol were encountered during the analytical procedures.

Wet Chemistry Data

The recovery of sample GRAB-2 Matrix Spike exhibited results below the quality control limits for Hexavalent Chromium. However, the LCS was acceptable.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Date: 10/19/2007 Time: 13:05:51

Dilution Log w/Code Information For Job A07-B418

7/60 age:

Rept: AN1266R

Client Sample ID	Lab Sample ID	Parameter (Inorganic)/Method (Organic)	<u>Dilution</u>	Code			
COMP-2	A7B41802	Chemical Oxygen Demand	2.00	800			
GRAB-1	A7B41804	624	40.00	003			()
GRAB-2	A7B41805	Hexavalent Chromium - Total	5.00	010			
GRAB-2	A7B41805MS	Hexavalent Chromium - Total	5.00	010	i		
GRAB-3	A7B41806	Ammonia	500.00	800			

Dilution Code Definition:

002 - sample matrix effects

003 - excessive foaming

004 - high levels of non-target compounds

005 - sample matrix resulted in method non-compliance for an Internal Standard

006 - sample matrix resulted in method non-compliance for Surrogate

007 - nature of the TCLP matrix

008 - high concentration of target analyte(s)

009 - sample turbidity

010 - sample color

011 - insufficient volume for lower dilution

012 - sample viscosity

013 - other

Date: 10/19/2007 Time: 13:05:53 Requested Reporting Limits < Lab PQL

Page: 1 Rept: AN1520

The requested project specific reporting limits listed below were less than lab standard quantitation limits but greater than or equal to lab MDL. It must be noted that results reported below lab standard quantitation limit (PQL) may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Parameter	Unit	Client RL	Lab POL
<u>Metals</u>				
200.7 200.7 245.1 200.7	Boron, Total Chromium, Total Mercury, Total Zinc, Total	MG/L MG/L MG/L MG/L	0.010 0.0030 0.00010 0.0050	0.020 0.0040 0.00020 0.010

STL

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U Indicates compound was analyzed for, but not detected.

- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- Indicates coelution.
- Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U Indicates element was analyzed for, but not detected. Report with the detection limit value.

- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- G Indicates a value greater than or equal to the project reporting limit but less than the laboratory quantitation limit
- * Indicates the spike or duplicate analysis is not within the quality control limits.
- Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.



Client ID Job No Lab ID Sample Date		GRAB-1 A07-B418 10/05/2007	A7B41804		and Marian Services				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	1000	NA		NA		NA	
Methyl Ethyl Ketone	UG/L	ND ND	1000	NA NA		NA NA		NA NA	
Benzene	UG/L	· ND	200	NA NA		NA NA		NA NA	
Dichlorobromomethane	UG/L	ND	200	NA NA		l NA		NA NA	
Bromoform	UG/L	ND	200	NA NA		NA NA		NA.	
Bromomethane	UG/L	ND ND	200	NA NA		NA NA		NA .	
Carbon Tetrachloride	UG/L	ND	200	NA		NA NA		NA NA	
Chlorobenzene	UG/L	ND	200	NA NA		NA NA	1	NA NA	
Chloroethane	UG/L	ND -	200	NA NA		NA NA	•	NA NA	
Chloroform	UG/L	· ND	200	NA NA		NA NA		NA NA	
Chloromethane	UG/L	ND	200	NA NA		NA NA			
Dibromochloromethane	UG/L	ND	200	NA NA		NA NA		NA	
1,2-Dichlorobenzene	UG/L	ND	200	NA NA		NA NA		NA .	ļ
1,3-Dichlorobenzene	UG/L	ND	200	NA NA		NA NA		NA	
1,4-Dichlorobenzene	UG/L	ND	200	NA NA		NA NA		NA	
1,1-Dichloroethane	UG/L	ND	200	NA NA				NA	
1,2-Dichloroethane	UG/L	ND	200	NA NA		NA NA		NA NA	
1,1-Dichloroethene	UG/L	ND	200	NA NA		NA NA		NA	
trans-1,2-Dichloroethene	UG/L	ND ND	200	NA NA				NA NA	·
1,2-Dichloropropane	UG/L	ND	200	NA NA		NA NA		NA	
cis-1,3-Dichloropropene	UG/L	ND	200	NA NA		NA NA		NA	
trans-1,3-Dichloropropene	UG/L	ND	200	NA NA		NA NA		NA	
Ethylbenzene	UG/L	ND	200	NA NA		NA NA		NA NA	· ·
Methylene chloride	UG/L	ND ND	200	NA NA	;	NA NA		NA ·	
1,1,2,2-Tetrachloroethane	UG/L	ND	200	NA NA		NA NA	•	NA	
Tetrachloroethene	UG/L	ND	200	NA NA	'	NA	· ·	NA NA	
Toluene	UG/L	ND	200	1		NA	· ·	NA	·
1,1,1-Trichloroethane	UG/L	ND	200	NA NA		NA	·	NA	
1,1,2-Trichloroethane	UG/L	ND ND		NA		· NA		NA	
Trichloroethene	UG/L	ND ND	200	, NA		NA .	·	NA NA	1
Trichlorofluoromethane	UG/L	ND	200	NA NA		NA		NA NA	
Vinyl chloride	UG/L	ND		NA		NA NA		NA NA	
cis-1,2-Dichloroethene	UG/L	ND ND	200	NA		NA		NA .	1
2-Hexanone	UG/L		200	NA		NA		. NA	
Methyl-t-Butyl Ether (MTBE)	UG/L	ND	1000	NA NA		NA		NA	
Methyl Isobutyl Ketone	UG/L	ND ND	200	NA NA		· NA		NA	
Styrene	UG/L		1000	NA NA	3	NA	*	· NA	1
m/p-Xylenes	UG/L	ND ND	200	NA NA		NA ·		NA	
o-Xylene	UG/L	ND	400	NA		NA NA		NA	
SURROGATE(S)	OG/L	ND	200	NA NA		NA NA		NA .	
Totuene-D8	*			1		 	- 		
p-Bromofluorobenzene		97	87-110	NA		NA NA	• •	NA ·	
1,2-Dichloroethane-D4	* X	98	78-122	NA .		NA NA		NA	
Live bichtor de thane-p4	×	109	88-132	NA NA	I	NA NA	1	NA NA	1

Client ID Job No Lab ID Sample Date		GRAB-2 A07-B418 10/05/2007	A7B41805						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acenaphthene	UG/L	ND	4.7	NA		NA NA		NA	
Acenaphthylene	UG/L	ND	4.7	l NA		NA NA		NA NA	
Anthracene	UG/L	ND	4.7	NA NA		NA NA		NA NA	
Benzidine	UG/L	ND	76	NA NA		NA NA		NA NA	
Benzo(a)anthracene	UG/L	ND	4.7	NA.		NA NA	·	NA NA	
Benzo(b) fluoranthene	UG/L	ND	4.7	NA	*	NA		NA NA	
Benzo(k)fluoranthene	UG/L	ND	4.7	NA NA		NA NA		NA NA	
Di-n-butyl phthalate	UG/L	ND	4.7	NA NA		NA NA		NA NA	
Benzo(ghi)perylene	UG/L	ND	4.7	NA NA		NA NA		NA NA	
Benzo(a)pyrene	UG/L	ND	4.7	NA.		NA NA	- 1 - 1	l NA	
Bis(2-chloroethoxy) methane	UG/L	ND	4.7	NA NA		NA ·		l NA	'
Bis(2-chloroethyl) ether	UG/L	ND	4.7	NA NA		NA NA		NA.	
Bis(2-ethylhexyl) phthalate	UG/L	15	9.5	NA NA	1	NA NA	en e	NA NA	\
4-Bromophenyl phenyl ether	ug/L	ND	4.7	NA NA	'	NA NA		NA NA	
Butyl benzyl phthalate	UG/L	ND	4.7	NA ·		NA NA		NA NA	•
Cresol, p-Chloro-m-	UG/L	ND ND	4.7	NA NA		NA NA		NA NA	
2-Chloronaphthalene	UG/L	ND ND	4.7	NA NA	* * * * * * * * * * * * * * * * * * * *	NA NA		NA NA	
2-Chlorophenol	UG/L	ND	4.7	NA.		NA NA		NA NA	
4-Chlorophenyl phenyl ether	UG/L	ND	4.7	NA NA		NA NA		NA NA	
Chrysene	UG/L	ND ND	4.7	NA NA		NA NA		NA NA	1
Dibenzo(a,h)anthracene	UG/L	ND	4.7	NA NA	1	NA NA	1	NA NA	
1,3-Dichlorobenzene	UG/L	D ND	9.5			1	}		
1,2-Dichlorobenzene		ND ND	9.5	NA NA		NA NA	}	NA NA	
1,4-Dichlorobenzene	UG/L UG/L	ND ND	9.5	NA NA		NA NA		NA NA	1
1 7		1	1	NA		NA NA		NA NA	ľ
3,3'-Dichlorobenzidine	UG/L	9.0	4.7	NA		NA		· NA	
2,4-Dichlorophenol	UG/L	ND	4.7	NA NA		NA		NA	·
Diethyl phthalate	UG/L	ND	4.7	NA		NA		NA	
2,4-Dimethylphenol	UG/L	ND	4.7	NA		NA NA		NA	,
Dimethyl phthalate	UG/L	ND	4.7	NA		NA NA		NA NA	
Cresol, 4,6-Dinitro-O-	UG/L	ND	9.5	NA	1	NA		NA NA	
2,4-Dinitrophenol	UG/L	ND	9.5	NA NA	1	NA		NA	
2,4-Dinitrotoluene	UG/L	ND	4.7	NA NA		NA NA		NA NA	
2,6-Dinitrotoluene	ue/r	ND	4.7	NA		NA NA		NA NA	
Di-n-octyl phthalate	ug/L	ND	4.7	NA NA		NA NA	1	NA NA	
Fluoranthene	ne\r	ND	4.7	NA NA		NA		NA NA	
Fluorene	UG/L	· ND	4.7	NA NA		NA	1	NA NA	
Hexachlorobenzene	UG/L	ND	4.7	NA:		NA		· NA ·	
Hexachlorobutadiene	ne\r	ND	4.7	NA .		NA NA		NA	
Hexachlorocyclopentadiene	UG/∟	ND ND	4.7	NA NA		NA		NA NA	
Hexachloroethane	UG/L	ND	4.7	NA NA		NA		NA NA	
Indeno(1,2,3-cd)pyrene	UG/L	ND .	4.7	NA		NA		NA NA	
Isophorone	UG/L	ND	4.7	NA NA		NA		NA NA	1
Naphthalene	UG/L	· ND	4.7	NA NA		NA NA	1	l NA	1

Granby L ill Quarterly Discharge Monitoring - (01,04,07,10) METHOD 625 - QUARTERLY WW BNA'S



Client ID Job No Lab ID Sample Date		GRAB-2 A07-B418 10/05/2007	A7B41805						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrobenzene	UG/L	ND	4.7	NA NA		NA		NA NA	
2-Nitrophenol	UG/L	ND	4.7	NA NA		NA NA		NA NA	
4-Nitrophenol	UG/L	ND.	9.5	NA NA		NA NA			
N-Nitrosodimethylamine	UG/L	ND	9.5	NA NA		NA .		NA NA	
N-Nitroso-Di-n-propylamine	UG/L	ND	4.7	NA NA		NA NA		NA	
N-nitrosodiphenylamine	UG/L	ND	4.7	NA.		· NA		NA	Ì
Pentachlorophenol	UG/L	ND	9.5	NA NA	*	NA NA	.	NA	
Phenanthrene	UG/L	ND	4.7	NA NA			†	NA	
Phenol	UG/L	15	4.7	NA NA		NA		NA	
Pyrene	UG/L	ND	4.7	NA NA		NA		NA	
1,2,4-Trichlorobenzene	UG/L	ND	9.5	NA NA		NA		NA	
2,4,6-Trichlorophenol	UG/L	ND	4.7			NA		NA	
Aniline	UG/L	ND	9.5	NA NA	1	NA ·		NA .	
Benzoic acid	UG/L	ND ND	140	NA NA		NA		NA	
Benzyl alcohol	UG/L	ND	19	NA NA		NA NA		NA	
Carbazole	UG/L	ND		NA NA		NA .		NA	ļ
4-Chloroaniline	UG/L	ND	4.7	NA		NA ·		NA	
Dibenzofuran	UG/L		4.7	NA NA		NA		NA	1
2-Methylnaphthalene	UG/L	ND	4.7	NA		NA		NA .	
Cresol, o-	UG/L	ND	4.7	NA		NA		NA NA	
5+4-Methylphenol		ND	4.7	NA		· NA		NA	
2-Nitroaniline	UG/L	ND	9.5	NA NA		NA		NA	
3-Nitroaniline	UG/L	ND	9.5	NA NA		NA		NA.	
4-Nitroaniline	UG/L	ND	9.5	NA		NA		NA .	
Pyridine	UG/L	ND	9.5	NA	,]	NA	1	NA NA	
	ne/r	ND	24	NA NA		NA	ì	NA	
2,4,5-Trichlorophenol	UG/L	ND	4.7	NA NA		NA		NA NA	
Azobenzene (TIC)	UG/L	ND	9.5	NA	1	NA NA		NA NA	
2,2'-0xybis(1-Chloropropane)	UG/L (ND	4.7	NA NA		NA.		NA NA	
IS/SURROGATE(S)	1				 				<u> </u>
Phenanthrene-D10	1%	101	50-200	NA NA	1	NA		NA	
laphthalene-D8	x	94	50-200	NA NA		NA.		NA NA	
,4-Dichlorobenzene-D4	1%	80	50-200	NA NA		NA NA		NA NA	
Acenaphthene-D10	1%	95	50-200	NA		NA NA			
hrysene-D12	1%	106	50-200	NA NA		NA NA		NA NA	j
Perylene-D12	X	56	50-200	NA NA	1.	NA NA		NA NA	
litrobenzene-D5	x	88	42-120	NA		NA NA		NA NA	
?-Fluorobiphenyl	%	83	44-120	NA NA	1	NA NA		NA	
-Terphenyl-d14	x	76	22-125	NA NA	1	NA NA		NA _.	
henol-05	x	39	10-120	NA NA				. NA	
2-Fluorophenol	1%	46	17-120	NA NA	1	NA NA		NA	
,4,6-Tribromophenol	1%	93	49-122	NA NA	1	NA	1	NA	
	1 1		77 122	i ww	t l	NA	1 1	NA	I.

Granby Landfill Quarterly Discharge Monitoring - (01,04,07,10) TOTAL METALS - METHOD 200.7 / 245.1 (0CT)

Rept: ANO326

Client ID Job No Lab ID Sample Date		COMP-3 A07-B418 10/05/2007	A7B41803						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Boron, Total	MG/L	15.9	0.010	NA.		NA .		NA	
Cadmium, Total	MG/L	ND	0.0010	NA	1	NA		NA .	
Chromium, Total	MG/L	0.089	0.0030	NA NA		NA		NA	
Lead, Total	MG/L	ND	0.0050	NA		NA ·		NA NA	
Mercury, Total	MG/L	, ND	0.00012	NA		NA		. NA	
Nickel, Total	MG/L	0.18	0.10	NA		NA		NA	
Zinc, Total	MG/L	0.27	0.0050	NA		NA	Į.	N'A	
Aluminum, Total	MG/L	0.28	0.20	NA		NA		NA '	
Barium, Total	MG/L	1.2	0.0020	. NA		NA		. NA	
Copper, Total	MG/L	0.042	0.010	NA		NA		NA .	

Granby L ll
Quarterly Discharge Montaging - (01,04,07,10)
WET CHEMISTRY ANALYSIS



Client ID Job No Lab ID Sample Date		COMP-1 A07-B418 10/05/2007	A7B41801	COMP-2 A07-B418 10/05/2007	A7B41802	GRAB-2 A07-B418 10/05/2007	A7B41805	GRAB-3 A07-B418 10/05/2007	A7B41806
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Biochemical Oxygen Demand Chemical Oxygen Demand (COD) Bexavalent Chromium, Total Ammonia (As N) Total Suspended Solids (TSS) Oil and Grease OH (Lab Test)	MG/L MG/L MG/L MG/L-N MG/L MG/L S.U.	130 NA NA NA 4.0 NA 7.79	2.0 4.0 0.500	NA 1640 NA NA NA NA	20.0	NA NA ND NA NA	0.050	NA NA NA 490 NA ND	10 5.0

Batch Quality Control Data

13:06:09

MS/MSD Bat... QC Results

ept: AN1397

Lab Sample ID: A7B17907

A7B17907MS

		Concent	ration			1
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS WVDP - METHOD 350.1/AMMONIA AS NH3 - S	MG/L-NH3	0.0511	0.356	0.244	125	54-150

MS/MSD Batch QC Results

Rept: AN1392

Lab Sample ID: A7B29501

A7B29501MS

		Concent	ration			
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 350.1 - AMMONIA	MG/L-N	0.0462	0.277	0.200	116	54-150

Date: 10/19/ Batch No: A781586 13:06:09

MS/MSD Bar. QC Results

ppt: AN1392

Lab Sample ID: A7B31403

A7B31403MS

		Concent	tration	1,0,0		Ī
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS 350.1 - AMMONIA, SOLUBLE 0.02 MG/L	MG/L-N	0.0450	0.295	0.200	125	54-150

MS/MSD Batch QC Results

Rept: AN1392

Lab Sample ID: A7B36805

A7B36805MS

		Concent	tration			
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 350.1 - AMMONIA	MG/L-N	7.74	8.90	1.00	116	54-150

STL Buffalo

MS/MSD Bate ac Results

ेpt: AN1392

Lab Sample ID: A7B41805

A7841805MS

		Concen	tration			1
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 3500CR-B - SM - HEXAVALENT CHRO	MG/L	0	0.0550	0.250	22 *	85-115

MS/MSD Batch QC Results

Rept: AN1392

Lab Sample ID: A7B42001

A7B42001MS

		Concent	tration			
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 405.1 - BIOCHEMICAL OXYGEN DEMA	MG/L	3.92	188.2	198.0	93	22-178

13:06:09

MS/MSD Bat. QC Results

pt: AN1392

Lab Sample ID: A7B61603

A7B61603MS

		Conce	ntration]	Γ.
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS 410.4 - CHEMICAL OXYGEN DEMAND - 5.0MG	MG/L	300.7	547.9	400.0	62 *	75-125

Chronology and QC Summary Package

Granby L()ll Quarterly Discharge Monitoring - (01,04,07,10) METHOD 624 - WASTE WATER VOLATILES



Client ID Job No Lab ID Sample Date		VBLK38 A07-B418	A7B1604502						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	25	NA		NA.		NA	
Methyl Ethyl Ketone	UG/L	ND	25	NA		NA NA		. NA	
Benzene	UG/L	ND	5.0	NA		NA NA		NA NA	
Dichlorobromomethane	UG/L	ND .	5.0	NA		NA NA		NA NA	
Bromoform	UG/L	ND ,	5.0	NA		NA .		NA NA	
Bromomethane	UG/L	ND	5.0	NA -	*	NA NA	İ	NA NA	
Carbon Tetrachloride	UG/L	ND.	5.0	NA ·		NA.		NA NA	
Chlorobenzene	UG/L	ND	5.0	NA		NA NA		NA NA	•
Chloroethane	UG/L	· ND	5.0	NA		NA NA		NA NA	
Chloroform	UG/L	ND	5.0	NA NA		NA NA		NA NA	
Chloromethane	UG/L	ND .	5.0	NA		NA NA			
Dibromochloromethane	UG/L	ND	5.0	NA		NA NA		NA NA	
1,2-Dichlorobenzene	UG/L	ND	5.0	NA -		NA NA	1	NA	Į.
1,3-Dichlorobenzene	UG/L	ND	5.0	NA NA		NA NA		NA	
1,4-Dichlorobenzene	UG/L	ND ND	5.0	NA NA				NA	
1,1-Dichloroethane	UG/L	ND	5.0	NA NA		NA NA		NA	
1,2-Dichloroethane	ue/∟	ND	5.0	NA NA		NA NA		NA	
1,1-Dichloroethene	UG/L	ND	5.0	NA NA		NA NA		NA	i
trans-1,2-Dichloroethene	UG/L	ND	5.0	NA NA		· NA		NA	
1,2-Dichloropropane	UG/L	ND	5.0	NA NA		NA ·		NA	
cis-1,3-Dichloropropene	UG/L	ND ND	5.0	NA NA	ł	NA 		NA	
trans-1,3-Dichloropropene	UG/L	ND	5.0			NA NA		NA	
Ethylbenzene	UG/L	ND ND	5.0	NA NA		NA NA		NA	
Methylene chloride	UG/L	ND ND	5.0	NA .	·	NA .	i .	NA -	
1,1,2,2-Tetrachloroethane	UG/L	ND	5.0	NA		NA NA		NA	
Tetrachloroethene	UG/L	ND ND	5.0	NA NA		NA NA		NA	
Toluene	UG/L	ND		NA		. NA	'	NA	· ·
1,1,1-Trichloroethane	UG/L	ND.	5.0	NA		NA:	·	NA	
1,1,2-Trichloroethane	UG/L	ND ND	5.0	NA		NA NA		NA	
Trichloroethene	UG/L	1	5.0	NA		NA NA		NA	
Trichlorofluoromethane	UG/L	ND	5.0	NA		NA .		NA	1
Vinyl chloride	UG/L	ND	5.0	NA		N _A	ļ	NA	1
cis-1,2-Dichloroethene		ND .	5.0	ŅA		NA NA		NA	
2-Hexanone	UG/L	ND	5.0	, NA		NA NA		NA	1
Methyl-t-Butyl Ether (MTBE)	UG/L	ND	25	NA		NA NA		NA	
Methyl Isobutyl Ketone	UG/L	ND	5.0	NA		NA NA		NA NA	1
Styrene	UG/L	ND _.	25	NA		NA NA		NA .	
	UG/L	ND	5.0	NA		NA		NA.	
m/p-Xylenes	UG/L	ND	10	NA		NA NA		NA NA	
o-Xylene SURROGATE(S)	UG/L	ND	5.0	NA NA		NA NA		NA NA	
Toluene-D8	×	00	07.440				 		
p-Bromofluorobenzene	%	99	87-110	NA	-	NA.		NA	
1,2-Dichloroethane-D4	% %	99	78-122	NA NA		NA		NA	
-,- > iontoi octilane-p4	1^	113	88-132	NA	Į i	NA		NA	

Client ID Job No Lab ID Sample Date		LCS38 A07-B418	A7B1604501						_
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	U6/L	100	25	NA		NA		NA	
Methyl Ethyl Ketone	UG/L	100	25	NA NA		NA NA		NA NA	
Benzene	UG/L	22	5.0	NA		NA.		NA NA	
Dichlorobromomethane	UG/L	20	5.0	NA		NA.		NA NA	
Bromoform	UG/L	18	5.0	NA NA		NA NA		NA NA	1.
Bromomethane	UG/L	18	5.0	NA NA	ŀ	NA NA	'	NA NA	
Carbon Tetrachloride	UG/L	23	5.0	NA NA		NA NA		NA NA	
Chlorobenzene	UG/L	20	5.0	NA NA	! .	NA NA		NA NA	.
Chloroethane	UG/L	18	5.0	NA NA		NA NA		1	1
Chloroform	UG/L	20	. 5.0		i .	I		NA NA	İ
Chloromethane	UG/L	20	5.0	NA NA		NA NA		NA NA	
Dibromochloromethane	UG/L	19				NA		NA NA	
			5.0	NA NA		NA		NA	ļ.
1,2-Dichlorobenzene	UG/L	19	5.0	NA		NA		NA .	
1,3-Dichlorobenzene	UG/L	19	5.0	NA NA		NA NA	1.5	NA	
1,4-Dichlorobenzene	UG/L	19	5.0	NA NA		NA		NA	
1,1-Dichloroethane	UG/L	20	5.0	NA ·	l	NA NA		NA NA	
1,2-Dichloroethane	∪G/̈∟	21	5.0	NA NA		NA NA	İ	NA	
1,1-Dichloroethene	UG/L	19	5.0	NA NA		NA		NA NA	· ·
trans-1,2-Dichloroethene	UG/L	20	5.0	NA NA		· NA		NA	
1,2-Dichloropropane	ug/L	18	5.0	NA NA	i .	NA		NA NA	1
cis-1,3-Dichloropropene	UG/L	20	5.0	NA NA		NA NA		NA	
trans-1,3-Dichloropropene	UG/L	19	5.0	NA NA		NA NA		NA	,
Ethylbenzene	UG/L	21	5.0	NA		NA		NA	1
Methylene chloride	UG/L	19	5.0	NA	1	. NA		NA NA	
1,1,2,2-Tetrachloroethane	UG/L	19	5.0	NA NA		NA		NA NA	
Tetrachloroethene	UG/L	19	5.0	NA .		NA NA		NA	
Toluene	υG/∟	20	5.0	NA NA		NA		NA	
1,1,1-Trichloroethane	UG/L	20	5.0	NA NA	1.	NA		NA NA	
1,1,2-Trichloroethane	UG/L	20	5.0	NA.		NA		NA.	7
Trichloroethene	UG/L	19	5.0	NA		NA NA	*	NA NA	}
Trichlorofluoromethane	UG/L	20	5.0	NA.		NA.		NA NA	
Vinyl chloride	UG/L	20	5.0	NA NA		NA NA		NA NA	
cis-1,2-Dichloroethene	UG/L	20	5.0	NA NA		NA NA	· ·	NA NA	
2-Hexanone	UG/L	100	25	NA NA		NA NA		NA NA	
Methyl-t-Butyl Ether (MTBE)	UG/L	20	5.0	NA NA		NA NA		NA NA	
Methyl Isobutyl Ketone	UG/L	100	25	NA NA		NA NA		NA NA	
Styrene	UG/L	20	5.0	NA NA				1	
m/p-Xylenes	UG/L	41	10	1		NA NA		NA NA	
o-Xylene	UG/L	20	5.0	NA NA		NA NA		NA	
SURROGATE(S)	OG/L	20	3.0	NA	·	NA		NA NA	
Toluene-D8	%	100	97_110	NA.		1	1	T	
p-Bromofluorobenzene	% %	100	87-110	NA NA		NA NA		NA NA	
1,2-Dichloroethane-D4	% %	102	78-122	NA NA		NA NA		NA	
1,2 DICHTOLOG CHAME-D4	- \ ^•	110	88-132	NA NA	ļ	NA NA		NA ·	

Granby L ll Quarterly Discharge Monturing - (01,04,07,10) METHOD 624 - WASTE WATER VOLATILES



Client ID Job No Lab ID Sample Date		TRIP BLANK A07-B418 10/05/2007	A7B41807						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/L	ND	25	NA		NA NA		NA NA	<u> </u>
Methyl Ethyl Ketone	UG/L	ND	25	NA NA	•	NA.		NA NA	
Benzene	υG/L	ND	5.0	NA NA		NA I		NA NA	
Dichlorobromomethane	UG/L	ND	5.0	NA NA		NA I		NA NA	1
Bromoform	UG/L	ND ND	5.0	NA NA		NA		NA NA	
Bromomethane	UG/L	ND	5.0	NA NA		NA NA		NA NA	
Carbon Tetrachloride	UG/L	ND	5.0	NA NA		NA I		NA NA	
Chlorobenzene	UG/L	ND	5.0	NA		NA I			
Chloroethane	UG/L	ND	5.0	NA NA	<i>*</i>	NA I		NA NA	
Chloroform	ue/L	ND	5.0	NA NA		NA NA		NA NA	
Chloromethane	UG/L	ND	5.0	NA NA		NA NA		NA	1
Dibromochloromethane	UG/L	ND ND	5.0	NA NA		NA NA		. NA	ļ
1,2-Dichlorobenzene	UG/L	ND	5.0	NA NA		NA NA		NA	
1,3-Dichlorobenzene	UG/L	ND	5.0	NA NA		1		NA	
1,4-Dichlorobenzene	υG/L	ND	5.0	NA NA		NA I		NA .	
1,1-Dichloroethane	UG/L	ND ND	5.0	NA NA		NA NA	and the second second	NA NA	
1,2-Dichloroethane	UG/L	ND ND	5.0	NA NA		NA NA	4	NA NA	
1,1-Dichloroethene	UG/L	ND ND	5.0	NA NA	and the second	NA NA		NA	
trans-1,2-Dichloroethene	UG/L	ND	5.0	NA NA		NA .		- NA	
1,2-Dichloropropane	UG/L	ND ND	5.0	NA NA		NA NA		NA	1
cis-1,3-Dichloropropene	UG/L	ND ND	5.0	NA NA		NA NA		NA	
trans-1,3-Dichloropropene	UG/L	ND ND	5.0	NA NA		NA NA		NA	
Ethylbenzene	UG/L	ND ND	5.0	NA NA		NA NA		NA	
Methylene chloride	ug/L	ND ND	5.0	NA NA		NA NA		NA NA	
1,1,2,2-Tetrachloroethane	UG/L	ND ND	5.0	NA NA		NA NA		NA	* .
Tetrachloroethene	UG/L	ND	5.0	NA NA		NA NA		NA	i .
Toluene	UG/L	ND	5.0	NA NA		NA NA	*	NA	
1,1,1-Trichloroethane	UG/L	ND ND	5.0		4	NA NA		NA .	
1,1,2-Trichloroethane	UG/L	ND ND	5.0	NA NA	,	NA	*	NA NA	
Trichloroethene	UG/L	ND ND	5.0	NA NA		NA		NA	
Trichlorofluoromethane	UG/L	ND	5.0	NA NA		NA		NA	
Vinyl chloride	UG/L	ND ND	5.0	NA NA		NA		NΆ	
cis-1,2-Dichloroethene	UG/L	ND ND	1	NA		NA		NA	
2-Hexanone	UG/L	ND ND	5.0	NA NA	,	NA NA		· NA	
Methyl-t-Butyl Ether (MTBE)	UG/L	ND ND	25	NA 		NA .		NA	
Methyl Isobutyl Ketone	UG/L	ND ND	5.0	NA		NA NA		NA	
Styrene	UG/L		25	NA		NA		NA	
m/p-Xylenes	UG/L	ND ND	5.0	NA NA		NA NA	4	NA	
o-Xylene		ND.	_10	NA .	i	NA NA		NA	*
SURROGATE(\$)	ug/L	ND	5.0	NA NA		NA		NA	1
Toluene-D8	x	00	97 440			 	**.		
p-Bromofluorobenzene	%	98 99	87-110	NA		NA NA		NA	
1,2-Dichloroethane-D4	%		78-122	NA		NA NA		· NA	1
	(4	113	88-132	l NA		l NA I		NA	1 .

Analyte	
Acenaphthylene	
Acenaphthylene	
Anthracene	·
Benzidine	1
Benzo(a)anthracene	ŀ
Benzo(b) fluoranthene	
Benzo(k)fluoranthene	
Di-n-butyl phthalate	Į.
Benzo(ghi)perylene	
Benzo(a)pyrene	
Bis(2-chloroethoxy) methane UG/L ND 5.0 NA NA NA NA NA NA NA N	
Bis(2-chloroethyl) ether UG/L ND 5.0 NA NA NA Bis(2-ethylhexyl) phthalate UG/L ND 10 NA NA NA 4-Bromophenyl phenyl ether UG/L ND 5.0 NA NA NA Butyl benzyl phthalate UG/L ND 5.0 NA NA NA NA Cresol, p-Chloro-m- UG/L ND 5.0 NA NA NA NA 2-Chloronaphthalene UG/L ND 5.0 NA NA NA 2-Chlorophenol UG/L ND 5.0 NA NA NA 4-Chlorophenyl phenyl ether UG/L ND 5.0 NA NA NA NA NA NA NA	
Bis(2-ethylhexyl) phthalate UG/L ND 10 NA NA	
4-Bromophenyl phenyl ether	
Butyl benzyl phthalate	- 1
Cresol, p-Chloro-m-	
2-Chloronaphthalene	ŀ
2-Chlorophenol UG/L ND 5.0 NA NA	
4-Chlorophenyl phenyl ether UG/L ND 5.0 NA NA NA	1
Chrysene	
1,3-Dichlorobenzene UG/L ND 10 NA NA NA	
	i
1,2-Dichlorobenzene	- 1
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Indeno(1,2,3-cd)pyrene UG/L ND 5.0 NA NA NA	
Isophorone	
Naphthalene UG/L ND 5.0 NA NA NA	ł

Granby L ll Quarterly Discharge Montaging - (01,04,07,10) METHOD 625 - QUARTERLY WW BNA'S



Client ID Job No Lab ID Sample Date		SBLK A07~B418	A7B1588803						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrobenzene	UG/L	ND	5.0	NA		NA	-	NA	
2-Nitrophenol	UG/L	ND ND	5.0	NA		NA NA		NA	
4-Nitrophenol	UG/L	ND	10	NA NA		NA .	·	NA.	
N-Nitrosodimethylamine	UG/L	ND	10	NA NA		NA NA		NA	ł
N-Nitroso-Di-n-propylamine	UG/L	ND	5.0	NA NA		NA NA		NA NA	
N-nitrosodiphenylamine	UG/L	ND	5.0	NA .		NA NA		NA	
Pentachlorophenol	UG/L	ND	10	NA.		NA NA		NA NA	
Phenanthrene	UG/L	ND ND	5.0	NA NA		NA NA		NA	
Phenol	UG/L	ND	5.0	NA NA		NA NA]	NA NA	
Pyrene :	UG/L	ND-	5.0	l NA		NA.		NA NA	
1,2,4-Trichlorobenzene	UG/L	ND .	10	l na		NA		NA '	ļ ·
2,4,6-Trichlorophenol	UG/L	ND	5.0	l NA		NA NA		NA	
Aniline	UG/L	ND	10	NA .		NA NA		NA	
Benzoic acid	UG/L	ND	150	NA		NA.		NA NA	
Benzyl alcohol	UG/L	ND	20	NA .		NA.	*	NA NA	
Carbazole	UG/L	ND	5.0	NA.		NA NA		NA NA	
4-Chloroaniline	UG/L	ND	5.0	l NA		NA.		NA NA	
Dibenzofuran	UG/L	ND	5.0	NA NA	· •	NA .		NA NA	
2-Methylnaphthalene	UG/L	ND	5.0	NA NA		NA NA		NA NA	
Cresol, o-	UG/L	ND	5.0	NA NA		NA NA		NA NA	
3+4-Methylphenol	UG/L	ND	10	NA NA		· NA		NA NA	ł
2-Nitroaniline	UG/L	ND	10	NA NA		NA NA		NA NA	
3-Nitroaniline	UG/L	ND	10	NA NA		NA NA		NA NA	
4-Nitroaniline	UG/L	ND	10	NA NA		NA NA		NA NA	
Pyridine	UG/L	ND	25	NA NA		NA NA		NA NA	
2,4,5-Trichlorophenol	UG/L	ND	5.0	NA.		NA NA		NA .	
Azobenzene (TIC)	UG/L	ND	10	NA NA	İ	NA NA		NA NA	· ·
2,2'-0xybis(1-Chloropropane)	UG/L	ND	5.0	NA NA		NA NA	1	NA NA	
IS/SURROGATE(S)	1-7-					110		IVA	<u> </u>
Phenanthrene-D10	1%	105	50-200	NA		NA.		NA NA	
Naphthalene-D8	*	106	50-200	NA NA		NA NA		NA NA	1
1,4-Dichlorobenzene-D4	*	106	50-200	NA -		NA NA	•	NA NA	
Acenaphthene-D10	*	104	50-200	NA NA		NA NA		1	
Chrysene-D12	*	89	50-200	NA NA		NA.		NA NA	
Perylene-D12	×	87	50-200	NA NA		NA NA		NA NA	
Nitrobenzene-D5	×	72	42-120	NA NA		NA NA			
2-Fluorobiphenyl	1 x	80	44-120	NA NA		NA NA		NA NA	
p-Terphenyl-d14	×	100	22-125	NA NA		NA NA		NA NA	
Phenol-D5	×	31	10-120	NA NA	1	· NA			1
2-Fluorophenol	x	39	17-120	NA NA		NA NA		NA NA	
2,4,6-Tribromophenol	"	94	49-122	NA NA	1	NA NA		NA NA	
	1	1	7/ 166	1 "^		I INA	1	Į NA	Į.

Client ID Job No Lab ID Sample Date		Matrix Spike B A07-B418	llank A781588801	Matrix Spike AO7-B418	Blk Dup A7B1588802		·		
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acenaphthene	UG/L	41	5.0	45	5.0	NA NA		NA	
Acenaphthylene	UG/L	41	5.0	. 45	5.0	NA	}	NA	
Anthracene	UG/L	46	5.0	52	5.0	NA NA		NA NA	
Benzidine	UG/L	ND	80	ND	80	NA.		NA NA	
Benzo(a)anthracene	UG/L	47	5.0	50	5.0	NA NA		NA.	
Benzo(b) f Luoranthene	UG/L	44	5.0	47	5.0	NA NA		NA NA	
Benzo(k)fluoranthene	UG/L	45	5.0	49	5.0	NA NA		NA NA	
Di-n-butyl phthalate	UG/L	45	5.0	50	5.0	NA NA		NA NA	
Benzo(ghi)perylene	UG/L	54	5.0	50 52	5.0	NA NA		NA NA	and the second
Benzo(a)pyrene	UG/L	54 45	5.0	47	5.0				
Bis(2-chloroethoxy) methane	UG/L	45 39	5.0	42		NA NA		NA NA	
1					5.0	NA NA		NA .	
Bis(2-chloroethyl) ether	UG/L	33	5.0	37	5.0	NA NA	· .	NA NA	
Bis(2-ethylhexyl) phthalate	UG/L	48	10	49	10	NA		NA	
4-Bromophenyl phenyl ether	UG/L	44	5.0	47	5.0	NA		NA NA	
Butyl benzyl phthalate	UG/L	45	5.0	47	5.0	NA		NA NA	
Cresol, p-Chloro-m-	UG/L	43	5.0	48	5.0	NA		NA NA	1
2-Chloronaphthalene	ne\r	37	5.0	41	5.0	NA		NA NA	
2-Chlorophenol	UG/L	30	5.0	35	5.0	NA	 .	NA NA	
4-Chlorophenyl phenyl ether	UG/L	42	5.0	47	5.0	· NA	•	NA NA	
Chrysene	UG/L	46	5.0	49	5.0	NA ·		NA NA	
Dibenzo(a,h)anthracene	UG/L	53	5.0	53	5.0	NA ·		NA NA	
1,3-Dichlorobenzene	UG/L	24	10	29	10	NA NA	1	NA NA	
1,2-Dichlorobenzene	UG/L	25	10	30	- 10	NA NA		NA NA	,
1,4-Dichlorobenzene	UG/L	24	10	30	10	NA NA		NA NA	
3,3'-Dichlorobenzidine	UG/L	41	5.0	43	5.0	NA		NA	1
2,4-Dichlorophenol	UG/L	40	5.0	44	5.0	NA	Į .	NA	,
Diethyl phthalate	UG/L	45	5.0	49	5.0	NA NA		NA	
2,4-Dimethylphenol	UG/L	41	5.0	43	5.0	. NA	1	NA NA	1 .
Dimethyl phthalate	UG/L	45	5.0	49	5.0	NA NA	1	NA NA	
Cresol, 4,6-Dinitro-O-	UG/L	48	10	54	10	NA NA		NA NA	
2,4-Dinitrophenol	UG/L	41	10	46	10	NA.		NA NA	1
2,4-Dinitrotoluene	UG/L	46	5.0	51	5.0	NA NA		NA NA	
2,6-Dinitrotoluene	UG/L	48	5.0	53	5.0	NA NA		NA NA	
Di-n-octyl phthalate	UG/L	44	5.0	49	5.0	NA NA	1	NA NA	
Fluoranthene	UG/L	42	5.0	47	5.0	NA NA		NA NA	
Fluorene	UG/L	44	5.0	47	5.0	NA NA	1		1
Hexachlorobenzene	UG/L	42	5.0	48	5.0	NA NA		. NA	
Hexachlorobutadiene	UG/L	27	5.0	32	5.0			NA NA	
l l						NA NA	*	NA	
Hexachlorocyclopentadiene	υG/L	31	5.0	37	5.0	NA NA		NA	to the second
Hexachloroethane	UG/L	22	5.0	29	5.0	NA		NA NA	
Indeno(1,2,3-cd)pyrene	UG/L	54	5.0	54	5.0	NA		NA	
Isophorone	UG/L	39	5.0	43	5.0	NA		NA NA	
Naphthalene	υG/∟	33	5.0	37	5.0	[NA	l	NA NA	l

Granby L | Il Quarterly Discharge Montoring - (01,04,07,10) METHOD 625 - QUARTERLY WW BNA'S

ो: ANO32∢

Client ID Job No Lab ID Sample Date		Matrix Spike Blank A07-B418 A7B1588801		Matrix Spike Blk Dup A07-B418 A7B1588802		:			
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Nitrobenzene	UG/L	37	5.0	40	5.0	NA NA		NA NA	
2-Nitrophenol	UG/L	37	-5.0	41	5.0	NA -		NA NA	
4-Nitrophenol	UG/L	23	10	27	10	NA NA		NA NA	
N-Nitrosodimethylamine	UG/L	24	10	26	10	NA NA		NA NA	
N-Nitroso-Di-n-propylamine	UG/L	36	5.0	42	5.0	NA NA		NA NA	
N-nitrosodiphenylamine	UG/L	35	5.0	38	5.0	NA NA	}	NA NA	
Pentachlorophenol	UG/L	42	10	47	10	NA NA		NA NA	
Phenanthrene	UG/L	46	5.0	51	5.0	l NA		NA NA	* .
Phenol	UG/L	16	5.0	19	5.0	NA NA		NA NA	
Pyrene	UG/L	45	5.0	48	5.0	NA NA			
1,2,4~Trichlorobenzene	UG/L	29	10	33	10	NA NA		NA NA	1
2,4,6-Trichlorophenol	UG/L	42	5.0	46	5.0	NA NA		NA NA	<u> </u>
Aniline	UG/L	32	10	37	10	t ·		NA	
Benzoic acid	UG/L	ND ND	150	ND ND		NA NA		NA NA	
Benzyl alcohol	UG/L	31	20	37	150	NA		NA NA	
Carbazole	UG/L	ND ND	5.0		20	NA NA		NA NA	
4-Chloroaniline	UG/L	44	5.0	ND .	5.0	NA		NA	
Dibenzofuran	UG/L	44	5.0	48	5.0	NA		NA .	Po.
2-Methylnaphthalene	U6/L	35		44	5.0	NA		NA	
Cresol, o-	UG/L	35 31	5.0	40	5.0	NA NA	1	NA NA	
3+4-Methylphenol	UG/L		5.0	36	5.0	NA NA		NA	• .
2-Nitroaniline	UG/L	ND	10	ND	10	. NA	ľ	NA	
3-Nitroaniline		47	10	52	10	NA NA	1	NA .	
4-Nitroaniline	UG/L	47	10	51	10	NA		NA	
Pyridine	UG/L	49	10	54	10	NA		NA	
	UG/L	ND	25	ND	25	NA NA		NA NA	
2,4,5-Trichlorophenol	UG/L	44	5.0	50	5.0	NA NA	1	NA NA	! .
Azobenzene (TIC)	UG/L	ND	10	ND	10	NA NA		NA NA	
2,2'-0xybis(1-Chloropropane)	UG/L	33	5.0	38	5.0	NA NA		NA NA	
IS/SURROGATE(S)	 						} _	·	
Phenanthrene-D10	1%	98	50-200	111	50-200	NA		NA NA	
Naphthalene-D8	 x	97	50-200	108	50-200	NA NA		NA	
1,4-Dichlorobenzene-D4	1%	102	50-200	107	50-200	NA NA		NA NA	
Acenaphthene-D10	1%	98	50-200	111	50-200	NA		NA NA	
Chrysene-D12	1%	89	50-200	107	50-200	NA	1	NA NA	
Perylene-D12	1%	94	50-200	105	50-200	NA NA		NA NA	
Nitrobenzene-D5	1%	78	42-120	86	42-120	NA NA		NA NA	
2-Fluorobiphenyl	1%	82	44-120	90	44-120	NA NA		NA NA	
p-Terphenyl-d14	1%	89	22-125	93	22-125	NA NA	1	NA NA	1
Phenol-D5	1%	30	10-120	36	10-120	NA NA		NA NA	* *
2-Fluorophenol	×	38	17-120	45	17-120	NA NA		1	
2,4,6-Tribromophenol	x	92	49-122	102	49-122	I NA	1	NA NA	

Granby Landfill
Quarterly Discharge Monitoring - (01,04,07,10)
TOTAL METALS - METHOD 200.7 / 245.1 (0CT)

Rept: ANO326

Client ID Job No Lab Sample Date	ID	Method Blank A07-B418	A7B1583902	Method Blank A07-B418	A7B1587602				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury, Total	MG/L	ND	0.00012	NA		NA		NA	
Zinc, Total	MG/L	NA .	N. 7	ND	0.0050	NA		NA	ļ
Cadmium, Total	MG/L	NA.		ND	0.0010	NA NA		NA	1
Boron, Total	MG/L	NA		ND	0.010	NA NA		NA	
Chromium, Total	MG/L	NA		ND	0.0030	NA.		NA	
Lead, Total	MG/L	· NA	The state of the s	ND	0.0050	NA		NA	
Nickel, Total	MG/L	NA		. ND	0.10	NA NA		NA	·
Aluminum, Total	MG/L	NA NA		ND	0.20	NA.		. NA	
Barium, Total	MG/L	NA		ND	0.0020	NA		NA	
Copper, Total	MG/L	NA		ND	0.010	NA NA		NA NA	

Granby L ll
Quarterly Discharge Mon. ing - (01,04,07,10)
TOTAL METALS - METHOD 200.7 / 245.1 (OCT)

): ANO32

Client ID Job No Lab ID Sample Date		LCS A07-B418	A7B1583901	LFB A07-B418	A7B1587601				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury, Total Zinc, Total Zinc, Total Barium, Total Aluminum, Total Boron, Total Chromium, Total Lead, Total Nickel, Total Copper, Total	MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	O.OO33 NA NA NA NA NA NA NA	0.00012	NA 0.21 0.20 0.20 10.5 0.20 0.21 0.21 0.20	0.0050 0.0010 0.0020 0.20 0.010 0.0030 0.0050 0.10 0.010	NA NA NA NA NA NA NA		NA NA NA NA NA NA NA	

Granby Landfill Quarterly Discharge Monitoring - (01,04,07,10) WET CHEMISTRY ANALYSIS

Rept: ANO326

Client ID Job No Lab ID Sample Date		MBLK A07-B418	A781615902	MBLK A07-B418	A7B1632002	Method Blank A07-B418	A7B1579802	Method Blank A07-B418	A7B1580002
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Chemical Oxygen Demand (COD) Hexavalent Chromium, Total Biochemical Oxygen Demand	MG/L MG/L MG/L	ND NA NA	10	ND NA NA	10	NA ND NA	0.010	NA NA ND	2.0

Client ID Job No Lab ID Sample Date		Method Blank A07-B418	A7B1586502	Method Blank A07-B418	A7B1588202	Method Blank A07-B418	А7В1602502		
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Ammonia (As N) Total Suspended Solids (TSS) Oil and Grease	MG/L-N MG/L MG/L	ND NA NA	0.020	NA ND NA	4.0	NA NA ND	5.0	NA NA NA	

Granby L ill Quarterly Discharge Mon. Cring - (01,04,07,10) WET CHEMISTRY ANALYSIS



·									
Client ID Job No Lab ID Sample Date		GRAB-2 A07-B418 10/05/2007	A7841805MS	LCS A07-B418	A7B1578501	LCS A07-B418	A7B1579801	LCS A07-B418	A7B1580001
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Hexavalent Chromium, Total pH (Lab Test) Biochemical Oxygen Demand	MG/L S.U. MG/L	0.055 NA NA	0.050	NA 7.00 NA	0.500	0.049 NA NA	0.010	NA NA 200	2.0
						,		<u> </u>	_1
Client ID Job No Lab ID Sample Date		LCS A07-B418	A781586501	LCS A07-B418	A7B1588201	LCS A07-B418	A7B1602501	LCS A07-B418	A7B1615901
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Ammonia (As N) Total Suspended Solids (TSS) Oil and Grease Chemical Oxygen Demand (COD)	MG/L-N MG/L MG/L MG/L	0.74 NA NA NA	0.020	NA 740 NA NA	4.0	NA NA 20.9 NA	5.0	NA NA NA 182	10
					!		1	1	
Client ID Job No Lab ID Sample Date		LCS A07-B418	A7B1632001	Matrix Spike A07-B418	Blank A7B1602503				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Chemical Oxygen Demand (COD) Oil and Grease	MG/L MG/L	214 NA	10	NA 17_2	5.0	NA NA		NA NA	

Job No: A07-B418

Rept: ANO364

lient Sample ID: VBLK38
Lab Sample ID: A7B1604502

LCS38 A7B1604501

Concentration Units of Blank Spike % Recovery QC **Analyte** Measure Spike Amount Blank Spike LIMITS METHOD 624 - WASTE WATER VOLATILES UG/L 20.0 109 64-136 21.8 Benzene 66-135 Dichlorobromomethane UG/L 19.9 20.0 100 17.9 20.0 90 73-129 Bromoform UG/L UG/L 18.4 20.0 92 14-186 Bromomethane Carbon Tetrachloride UG/L 23.4 20.0 117 73-127 Chlorobenzene UG/L 19.7 20.0 99 66-134 20.0 89 38-162 Chloroethane UG/L 17.7 100 68-133 Chloroform UG/L 20.0 20.0 Chloromethane UG/L 20.4 20.0 102 1-204 UG/L 20.0 93 68-133 Dibromochloromethane 18.6 1,2-Dichlorobenzene UG/L 19.3 20.0 97 63-137 1,3-Dichlorobenzene UG/L 19.2 20.0 96 73-127 19.3 63-137 1,4-Dichlorobenzene UG/L 20.0 96 19.9 100 1,1-Dichloroethane UG/L 20.0 73-128 20.0 107 68-132 1,2-Dichloroethane UG/L 21.3 97 1,1-Dichloroethene UG/L 19.4 20.0 51-150 UG/L 19.7 20.0 99 70-131 trans-1,2-Dichloroethene UG/L 18.5 20.0 93 34-166 1,2-Dichloropropane cis-1,3-Dichloropropene UG/L 19.8 20.0 99 24-176 95 19.0 20.0 50-150 trans-1,3-Dichloropropene UG/L 20.0 106 59-141 Ethylbenzene UG/L 21.1 Methylene chloride UG/L 19.4 20.0 97 61-140 UG/L 20.0 95 1,1,2,2-Tetrachloroethane 18.9 61-140 Tetrachloroethene UG/L 19.1 20.0 96 74-127 UG/L 19.7 20.0 99 75-126 Toluene 1,1,1-Trichloroethane UG/L 20.0 20.0 100 75-125 98 71-129 1,1,2-Trichloroethane UG/L 19.6 20.0 Trichloroethene UG/L 18.8 20.0 94 67-134 Trichlorofluoromethane UG/L 20.1 20.0 101 48-152 20.0 100 Vinyl chloride UG/L 20.0 4-196 Methyl Ethyl Ketone UG/L 100 100 101 77-121

Client Sample ID: SBLK Lab Sample ID: A7B1588803

े:07:01

Matrix Spike Blank A7B1588801

Matrix Spike Blk Dup A7B1588802

	Units of	Concer	itration	-		*	Recove	гу			
Analyte	Measure	Spike Blank	Spike Blank Dup	Spike SB	Amount SBD	SB	SBD	Avg	% RPD	QC L:	IMITS REC.
METHOD 625 - QUARTERLY WW BNA'S						} -	 				
Acenaphthene	UG/L	40.9	45.0	50.0	50.0	00		ا م			i
Acenaphthylene	UG/L	40.9	45.4	50.0		82	90	86	9	25.0	47-12
Anthracene	UG/L	46.4	51.5	50.0	50.0	82	91	87	10	22.0	35-12
Benzidine	UG/L	30.9	34.6	50.0	50.0	93	103	98	10	15.0	
Benzo(a)anthracene	UG/L	46.7	49.9		50.0	62	69	66	11	50.0	
Benzo(b)fluoranthene	UG/L	44.1	46.8	50.0	50.0	93	100	97	7	15.0	
Benzo(k)fluoranthene	UG/L	44.9	49.4	50.0	50.0	88	94	91	6	17.0	1
Benzo(ghi)perylene	UG/L	53.6	52.4	50.0	50.0	90	99	95	10	19.0	50-14
Benzo(a)pyrene	UG/L	45.0	47.4	50.0	50.0	107	105	106	2	19.0	
Bis(2-chloroethoxy) methane	UG/L	38.9	47.4	50.0	50.0	90	95	93	5	15.0	
Bis(2-chloroethyl) ether	UG/L	32.6	37.2	50.0	50.0	78	85	82	8	23.0	
2,2'-Oxybis(1-Chloropropane)	UG/L	33.2	38.1	50.0	50.0	65	74	70	13	33.0	35-12
Bis(2-ethylhexyl) phthalate	UG/L	47.5		50.0	50.0	66	76	71	14	36.0	33-12
4-Bromophenyl phenyl ether	UG/L	44.5	49.3	50.0	50.0	93	97	95	4	15.0	49-15
Butyl benzyl phthalate	UG/L	45.0	47.1	50.0	50.0	89	94	92	5	16.0	53-12
Cresol, p-Chloro-m-	UG/L	43.0 43.2	47.0	50.0	. 50.0	90	94	92	4	15.0	47-14
2-Chloronaphthalene	UG/L		47.7	50.0	50.0	86	96	91	11	16.0	
2-Chlorophenol	UG/L	36.6	40.7	50.0	50.0	73	81	77	10	30.0	30-12
4-Chlorophenyl phenyl ether	UG/L	30.0	34.8	50.0	50.0	60	70	65	15	26.0	31-12
Chrysene	UG/L	42.4	47.1	50.0	50.0	85	94	90	10	15.0	43-12
Dibenzo(a,h)anthracene	UG/L	46.2	49.1	50.0	50.0	92	98	95	6	15.0	55-14
1,3-Dichlorobenzene	UG/L	53.4	53.2	50.0	50.0	107	106	107	0.	18.0	45-15
1,2-Dichlorobenzene	UG/L	23.9	28.8	50.0	50.0	48	58	53	19	37.0	14-12
1,4-Dichlorobenzene	UG/L	25.0	30.1	50.0	50.0	50	60	55	18	38.0	32-12
3,3'-Dichlorobenzidine		24.2	29.7	50.0	50.0	48	59	54	20	40.0	20-12
2,4-Dichlorophenol	UG/L	40.9	43.4	50.0	50.0	82	87	85	6	31.0	35-14
Diethyl phthalate	UG/L	39.5	43.9	50.0	50.0	79	88	84	11	23.0	43-12
2,4-Dimethylphenol	UG/L	45.0	48.9	50.0	50.0	90	98	94	8	15.0	45-13
Dimethyl phthalate	UG/L	40.6	43.2	50.0	50.0	81	86	84	6	18.0	42-12
Cresol, 4,6-Dinitro-0-	UG/L	44.8	48.6	50.0	50.0	90	97	94	7	15.0	54-12
2,4-Dinitrophenol	UG/L	48.2	53.5	50.0	50.0	96	107	102	11	30.0	
2,4-Dinitrotoluene	UG/L	40.9	46.0	50.0	50.0	82	92	87	11	29.0	
2,6-Dinitrotoluene	UG/L	45.9	50.8	50.0	50.0	92	102	97	10	20.0	1
Di-n-butyl phthalate	UG/L	47.6	52.7	50.0	50.0	95	106	101	11	17.0	
Di-n-octyl phthalate	UG/L	44.8	49.5	50.0	50.0	89	98	94	10	15.0	53-12
Fluoranthene	UG/L	43.8	48.8	50.0	50.0	88	98	93	11	15.0	56-14
Fluorene	∪e/r	42.1	47.4	50.0	50.0	84	95	90	12	15.0	
Hexachlorobenzene	UG/L	44.4	48.9	50.0	50.0	89	98	94	10	18.0	59-12
Hexachlorobenzene Hexachlorobutadiene	UG/L	42.5	47.5	50.0	50.0	85	95	90	11	15.0	54-13
	ne\r	26.9	32.2	50.0	50.0	54	64	59	17	50.0	
Hexachlorocyclopentadiene	UG/L	31.1	36.7	50.0	50.0	62	74	68	18	50.0	5-12
Hexachloroethane	UG/L	22.5	28.8	50.0	50.0	45	58	52	25	43.0	40~11
Indeno(1,2,3-cd)pyrene	UG/L	54.0	53.6	50.0	50.0	108	107	108	0.	17.0	50-14
Isophorone	UG/L	39.2	43.2	50.0	50.0	78	86	82	10	21.0	

GRANBY LANDFILL

Rept: ANO364

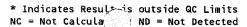
lient Sample ID: SBLK

Lab Sample ID: A7B1588803

Matrix Spike Blank A7B1588801

Matrix Spike Blk Dup A7B1588802

		Concer	tration			×	Recove	ry		1	
	Units of].	Spike	Amount				%	QC LI	MITS
Analyte	Measure	Spike Blank	Spike Blank Dup	SB	SBD	SB	SBD	Avg	RPD	RPD	REC.
METHOD 625 - QUARTERLY WW BNA'S						1					
Naphthalene	UG/L	33.1	37.3	50.0	50.0	66	75	71	13	31.0	33-120
Nitrobenzene	UG/L	36.7	40.1	50.0	50.0	73	80	77	9	27.0	35-120
2-Nitrophenol	UG/L	37.2	41.1	50.0	50.0	74	82	78	10	28.0	34-123
4-Nitrophenol	UG/L	22.9	26.8	50.0	50.0	46	54	50	16	24.0	22-120
N-Nitrosodimethylamine	UG/L	24.5	26.2	50.0	50.0	49	52	51	6	22.0	19-120
N-Nitroso-Di-n-propylamine	UG/L	36.3	41.8	50.0	50.0	73	84	79	14	23.0	40-120
N-nitrosodiphenylamine	UG/L	35.1	38.5	50.0	50.0	70	77	74	10	15.0	54-125
Pentachlorophenol	UG/L	41.6	47.3	50.0	50.0	83	95	89	13	21.0	37-147
Phenanthrene	UG/L	46.1	50.8	50.0	50.0	92	102	97	10	16.0	56-120
Phenol	UG/L	16.0	19.4	50.0	50.0	32	39	36	20	36.0	12-120
Pyrene	UG/L	45.0	47.5	50.0	50.0	90	95	93	5	15.0	52-120
1,2,4-Trichlorobenzene	UG/L	29.0	33.2	50.0	50.0	58	66	62	13	34.0	44-120
2,4,6-Trichlorophenol	UG/L	42.3	45.6	50.0	50.0	85	91	88	7	20.0	48-136
2-Methylnaphthalene	UG/L	35.0	40.0	50.0	50.0	70	80	75	13	30.0	40-120
Cresol, o-	UG/L	31.0	35.8	50.0	50.0	62	72	67	15	30.0	45-120
2-Nitroaniline	UG/L	46.7	52.5	50.0	50.0	93	105	99	12	30.0	40-120
3-Nitroaniline	UG/L	46.9	50.8	50.0	50.0	94	102	98	8	30.0	40-120
4-Nitroaniline	UG/L	48.8	54.4	50.0	50.0	98	109	104	11	30.0	40-120
Aniline	UG/L	32.4	36.6	50.0	50.0	65	73	69	12	30.0	40-120
Benzoic acid	UG/L	62.9	74.4	100	100	63	74	69	16	30.0	10-120
Benzyl alcohol	UG/L	31.4	37.4	50.0	50.0	63	75	69	17	30.0	25-120
2,4,5-Trichlorophenol	UG/L	44.3	49.9	50.0	50.0	89	100	95	12	21.0	45-132
						ļ					1





j:07:09

GRANBY LAWFILL

}pt: ANO364

Client Sample ID: Method Blank Lab Sample ID: A7B1583902

LCS

	·	Concentr	ation		
Analyte	Units of Measure	Blank Spike		% Recovery Blank Spike	QC LIMITS
TOTAL METALS - METHOD 200.7 / 245.1 (OCT TOTAL MERCURY	MG/L	0.00332	0.00333	100	85-115

GRANBY LANDFILL

Rept: ANO364

:lient Sample ID: Method Blank

Lab Sample ID: A7B1587602

LFB

	1	Concentr	` [·		
Analyte	Units of Measure	Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
TOTAL METALS - METHOD 200.7 / 245.1 (OCT					
TOTAL ALUMINUM	MG/L	10.47	10.0	104	85-115
TOTAL BARIUM	MG/L	0.200	0.200	100	85-115
TOTAL BORON	MG/L	0.205	0.200	101	85-115
TOTAL CADMIUM	MG/L	0.204	0.200	102	85-115
TOTAL CHROMIUM	MG/L	0.206	0.200	103	85-115
TOTAL COPPER	MG/L	0.206	0.200	103	85-115
TOTAL LEAD	MG/L	0.207	0.200	104	85-115
TOTAL NICKEL	MG/L	0.205	0.200	103	85-115
TOTAL ZINC	MG/L	0.206	0.200	103	85-115
	·			1	ļ

3:07:12

Date : 10/19/20 Job No: A07-B418

GRANBY LANDFILL SAMPLE DATE 10/05/2007

્રેept: ANO364

Client Sample ID: GRAB-2 Lab Sample ID: A7B41805 GRAB-2 A7B41805MS

		Concen	tration	,	1	
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 3500CR-B - SM - HEXAVALENT CHRO	MG/L	0	0.0550	0.250	22 *	85-115

Client Sample ID: MBLK

LCS

Lab Sample ID: A7B1615902

		Concenti	ation		
Analyte	Units of Measure	Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 410.4 - CHEMICAL OXYGEN DEMAND	MG/L	182.4	200.0	91	90-110

GRANBY LA. . ILL

ेapt: AN0364

Client Sample ID: MBLK

Lab Sample ID: A7B1632002

LCS

Analyte		Concent	ration		
	Units of Measure	Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 410.4 - CHEMICAL OXYGEN DEMAND	MG/L	213.7	200.0	107	90-110

GRANBY LANDFILL

Rept: ANO364

lient Sample ID: Method Blank Lab Sample ID: A7B1579802

LCS

·		Concenti	ration		
Analyte	Units of Measure	Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 3500CR-B - SM - HEXAVALENT CHRO	MG/L	0.0490	0.0500	98	85-115

GRANBY LA .ILL

}pt: ANO364

Client Sample ID: Method Blank

LCS

Lab Sample ID: A7B1580002

Analyte	Units of Measure	Concenti Blank Spike	ation Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS SM 5210B - BIOCHEMICAL OXYGEN DEMAND	MG/L	200.3	198.0	101	85-115

Rept: ANO364

:lient Sample ID: Method Blank Lab Sample ID: A7B1586502 LCS

Analyte		Concentr			
	Units of Measure	Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 350.1 - AMMONIA	MG/L-N	0.741	0.750	99	90-110

GRANBY LA. CILL



Client Sample ID: Method Blank

LCS

Lab Sample ID: A7B1588202 A7B1588201

Analyte	Units of Measure	Concentr Blank Spike	ration Spike Amount	% Recovery Blank Spike	QC
WET CHEMISTRY ANALYSIS SM 2540D - TOTAL SUSPENDED SOLIDS	MG/L	740.0	742.0	100	88-110

GRANBY LANDFILL

Rept: ANO364

:lient Sample ID: Method Blank

LCS

Lab Sample ID: A7B1602502

A7B1602501

		Concentra	ition		
Analyte	Units of Measure	Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 1664 - N-HEXANE EXTRACTABLE MAT	MG/L	20.90	25.00	84	78-114

Date:	10/19/200
Time:	13:07:17

WASTE MAY ENT SAMPLE CHRUNOLOGY

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Client Sample ID Job No & Lab Sample ID			
Sample Date Received Date Extraction Date Analysis Date	10/05/2007 10:42 10/06/2007 09:00 10/10/2007 10:49		
Extraction HT Met? Analytical HT Met? Sample Matrix Dilution Factor Sample wt/vol % Dry	YES LEACH 40.0 0.005 LITERS		

Client Sample ID Job No & Lab Sample ID	TRIP BLANK A07-B418 A7B41807				
Sample Date	10/05/2007				
Received Date	10/06/2007 09:00	· ·			
Extraction Date					
Analysis Date	10/10/2007 11:12				
Extraction HT Met?			·		•
Analytical HT Met?	YES		·		
Sample Matrix	WATER	·			
Dilution Factor	1.0				
Sample wt/vol	0.005 LITERS	·		•	
X Dry					

Date:	10/19/200
Time:	13:07:17

WASTE MAK ENT QC SAMPLE CIE JNOLOGY

٦ţ:	AN0374
ie:	3

Client Sample ID Job No & Lab Sample ID			
Sample Date Received Date Extraction Date Analysis Date Extraction HT Met? Analytical HT Met? Sample Matrix	10/09/2007 22:39 - - WATER		
Dilution Factor Sample wt/vol % Dry	1.0 0.005 LITERS		

Client Sample ID Job No & Lab Sample ID			
Sample Date Received Date Extraction Date Analysis Date Extraction HT Met? Analytical HT Met? Sample Matrix Dilution Factor Sample wt/vol % Dry	10/09/2007 23:02 		

Date:	10/19/200
Time:	13:07:22

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METHOD 625 - QUARTERLY WW BNA'S

Client Sample ID Job No & Lab Sample ID				
Sample Date Received Date Extraction Date Analysis Date Extraction HT Met? Analytical HT Met? Sample Matrix Dilution Factor Sample wt/vol % Dry	10/05/2007 10:42 10/06/2007 09:00 10/09/2007 08:00 10/09/2007 19:39 YES YES LEACH 1.0			

WASTE MANAGEMENT QC SAMPLE CHRONOLOGY Rept: ANO374 Page: 2

METHOD 625 - QUARTERLY WW BNA'S

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A07-B418 A7B1588801	Matrix Spike Blk Dup AO7-B418 A7B15888O2		
Sample Date Received Date			 	
Extraction Date Analysis Date Extraction HT Met?	10/09/2007 08:00 10/09/2007 15:52	10/09/2007 08:00 10/09/2007 16:15		·
Analytical HT Met? Sample Matrix	- WATER	- WATER		·
Dilution Factor Sample wt/vol % Dry	1.0 1.0 LITERS	1.0 1.0 LITERS		

Date:	10/19/20@
Time:	13:07:22

WASTE MA MENT QC SAMPLE C....JNOLOGY

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METHOD 625 - QUARTERLY WW BNA'S

Client Sample ID Job No & Lab Sample ID			
Sample Date Received Date Extraction Date Analysis Date Extraction HT Met? Analytical HT Met? Sample Matrix	10/09/2007 08:00 10/09/2007 16:37 - -		
Dilution Factor Sample wt/vol % Dry	WATER 1.0 1.0 LITERS		

Date: 10/19/2007 13:07:26 Jobno: A07-B418

WASTE MANAGEMENT SAMPLE CHRONOLOGY Rept: ANO369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	тнт	Analysis Date	AHT	Matrix
A7B41803	COMP-3	MG/L	Boron, Total	200.7	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/10 17:12	Yes	LEACH
		MG/∟	Cadmium, Total	200.7		10/05/2007 09:35		NA	1	10/10 17:12		
		MG/L	Chromium, Total	200.7	1.00	10/05/2007 09:35	10/06 09:00		1	10/10 17:12		i .
	·	MG/L	Lead, Total	200.7	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/10 17:12	Yes	LEACH
		MG/L	Mercury, Total	245.1	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/08 14:04	Yes	LEACH
		MG/L	Nickel, Total	200.7	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/10 17:12	Yes	LEACH
		MG/L	Zinc, Total	200.7	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/10 17:12	Yes	LEACH
		MG/L	Aluminum, Total	200.7	1.00	10/05/2007 09:35	10/06 09:00	NA NA	NA	10/10 17:12	Yes	LEACH
	1	MG/L	Barium, Total	200.7	1.00	10/05/2007 09:35	10/06 09:00	NA	ΝA	10/10 17:12	Yes	LEACH
į i		MG/L	Copper, Total	200.7	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/10 17:12	Yes	LEACH

Date: 10/19/20 Jobno: A07-B418 5:07:26

WASTE MAL ENT QC CHRON-LOGY

Rept: ANO369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	тнт	Analysis Date	АНТ	Matrix
	Method Blank	MG/L	Mercury, Total	245.1	1.00		- 09:00	NA	NA	10/08 14:06	Ves	WATER
A7B1587602	Method Blank	MG/L		200.7	1.00		- 09:00			10/10 13:53		
		MG/L	Cadmium, Total	200.7	1.00		- 09:00			10/10 13:53		
	* .	MG/L	1	200.7	1.00	_	- 09:00		NA	10/10 13:53		
		MG/L	Lead, Total	200.7	1.00	_	- 09:00	NA .	NA	10/10 13:53		
1.		MG/L	Nickel, Total	200.7	1.00	_	- 09:00	NA.	NA	10/10 13:53		
		MG/L	Zinc, Total	200.7	1.00	_	- 09:00	NA.	NA	10/10 13:53		
		MG/L	Aluminum, Total	200.7	1.00		- 09:00	NA.	NA	10/10 13:53		
		MG/L	Barium, Total	200.7	1.00	_	- 09:00	NA.	NA	10/10 13:53		
		MG/L	Copper, Total	200.7	1.00	_	- 09:00	NA NA	NA	10/10 13:53		
A7B1583901	LCS	MG/L	Mercury, Total	245.1	1.00	_	- 09:00	NA NA	NA.	10/08 14:05		
A7B1587601	LFB	MG/L	Boron, Total	200.7	1.00	_	- 09:00	NA NA	NA	10/10 13:59		
-		MG/L	Cadmium, Total	200.7	1.00	· _	- 09:00	NA NA	NA	10/10 13:59		
-		1 7	Chromium, Total	200.7	1.00		- 09:00	NA NA	NA	10/10 13:59		
		MG/L	Lead, Total	200.7	1.00	_	- 09:00	NA NA	NA	10/10 13:59		
			Nickel, Total	200.7	1.00		- 09:00	NA NA	NA NA	1 '.		1
		MG/L	Zinc, Total	200.7	1.00	_	- 09:00			10/10 13:59		
		MG/L	Aluminum, Total	200.7	1.00	_	- 09:00	NA NA	NA	10/10 13:59		
•		1 7	Barium, Total	200.7	1.00	_		NA NA	NA	10/10 13:59		
		MG/L	Copper, Total	200.7	1.00	·	- 09:00	NA NA	NA	10/10 13:59		i i
L	1	1 , -		200.7	1.00	-	- 09:00	NA	NA	10/10 13:59	Yes	WATER

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Date: 10/19/2007 13:07:29 Jobno: A07-B418

WASTE MANAGEMENT SAMPLE CHRONOLOGY

Rept: ANO369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	тнт	Analysis Date	АНТ	Matrix
A7B41801	COMP-1	MG/L	Biochemical Oxygen Demand	5210B	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/06 12:30	Yes	LEACH
		s.u.	pH (Lab Test)	4500-H+ B	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/06 11:15	Yes	LEACH
·		MG/L	Total Suspended Solids (TSS)	2540D	1.00	10/05/2007 09:35	10/06 09:00	NA	NA	10/08 16:50	Yes	LEACH
A7B41802	COMP-2	MG/L	Chemical Oxygen Demand (COD)	410.4	2.00	10/05/2007 09:35	10/06 09:00	NA	NA 1	10/15 13:00	Yes	LEACH
A7B41805	GRAB-2	MG/L	Hexavalent Chromium, Total	3500-CR B	5.00	10/05/2007 10:42	10/06 09:00	NA	NA !	10/06 10:50	Yes	LEACH
A7B41806	GRAB-3	MG/L-N	Ammonia (As N)	350.1	500.00	10/05/2007 10:42	10/06 09:00	NA	NA	10/08 10:47	Yes	LEACH
		MG/L	Oil and Grease	1664	1.00	10/05/2007 10:42	10/06 09:00	NA	NA	10/10 14:00	Yes	LEACH

Date: 10/19/20 3:07:29 Jobno: A07-B418

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1	1		,	,							
Lab ID Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A7B41805MS GRAB-2 A7B1602503 Matrix Spike Blank A7B1615902 MBLK A7B1579802 Method Blank A7B1586502 Method Blank A7B1588202 Method Blank A7B1588202 Method Blank A7B1578501 LCS A7B1579801 LCS A7B1588201 LCS A7B1588201 LCS A7B1588201 LCS A7B1602501 LCS A7B1602501 LCS A7B1632001 LCS A7B1632001 LCS A7B1632001 LCS	MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	Hexavalent Chromium, Total Oil and Grease Chemical Oxygen Demand (COD) Chemical Oxygen Demand (COD) Hexavalent Chromium, Total Biochemical Oxygen Demand Ammonia (As N) Total Suspended Solids (TSS) Oil and Grease pH (Lab Test) Hexavalent Chromium, Total Biochemical Oxygen Demand Ammonia (As N) Total Suspended Solids (TSS) Oil and Grease Chemical Oxygen Demand (COD) Chemical Oxygen Demand (COD)	3500-CR B 1664 410.4 3500-CR B 5210B 350.1 2540D 1664 4500-H+ B 3500-CR B 5210B 350.1 2540D 1664 410.4	5.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00		10/06 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00 - 09:00	NA NA NA NA NA NA NA NA NA NA NA NA NA N	NA NA NA NA NA NA NA NA NA NA NA NA NA	10/06 10:50 10/10 14:00 10/12 11:30 10/15 13:00 10/06 10:50 10/08 10:47 10/08 16:50 10/10 14:00 10/06 11:15 10/06 10:50 10/08 10:47 10/08 16:50 10/10 14:00 10/08 16:50 10/10 14:00	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER WATER

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WASTE MANAGEMENT CHAIN OF CUSTODY

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202-09

Internal Use Only

WASTE ACCEPTANCE PLAN

WASTE ACCEPTANCE PLAN

WASTE MANAGEMENT OF MASSACHUSETTS, INC.
HOLYOKE SANITARY LANDFILL
NEW LUDLOW ROAD
GRANBY, MASSACHUSETTS

October 2003

Prepared for:





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WASTE ACCEPTANCE PLAN

WASTE MANAGEMENT OF MASSACHUSETTS, INC. HOLYOKE SANITARY LANDFILL GRANBY, MASSACHUSETTS

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Attach Attach Attach	nment A – Emergency Response Contact List nment B – Load Inspection Report nment C – Waste Load Inspection Summary Repo nment D – Load Rejection Report nment E – Records of Training	ort

1.0 INTRODUCTION

This waste acceptance plan is designed to detect and prevent the disposal of prohibited wastes at the Holyoke Sanitary Landfill (also known as Granby Sanitary Landfill) and associated transfer station/collection center, operated by Waste Management of Massachusetts Inc., and located on New Ludlow Road in Granby, Massachusetts. Prohibited wastes include regulated hazardous wastes, regulated polychlorinated biphenyl (PCB) wastes, and other wastes prohibited by state or local regulations or permit conditions.

The United States Environmental Protection Agency's (USEPA) Resource Conservation and Recovery Act (RCRA) Subtitle D operating criteria for excluding hazardous waste from municipal solid waste landfills can be found in The Code of Federal Regulations (CFR), Part 258, Subpart C, Section 258.20, which reads as follows:

- (a) Owners or operators of all MSWLF units must implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined in part 261 of this chapter and polychlorinated byphenyls (PCB) wastes as defined in part 761 of this chapter. This program must include, at a minimum:
 - (1) Random inspections of incoming loads unless the owner or operator takes other steps to ensure that incoming loads do not contain regulated hazardous wastes or PCB wastes;
 - (2) Records of any inspections;
 - (3) Training of facility personnel to recognize regulated hazardous waste and PCB wastes; and
 - (4) Notification of State Director of authorized States under Subtitle C of RCRA or the EPA Regional Administrator in an unauthorized State if a regulated hazardous waste or PCB waste is discovered at the facility.
- (b) For the purposes of this section, regulated hazardous waste means a solid waste that is a hazardous waste as defined in 40 CFR 261.3, that is not excluded from regulation as a hazardous waste under 40 CFR 261.4 (b) or was not generated by a conditionally exempt generator as defined in paragraph 261.5 of this chapter.

2.0 PROHIBITED WASTES

Holyoke Sanitary Landfill is allowed to receive municipal solid waste, non-municipal solid waste, household waste and construction/demolition waste as authorized by the facility's operating permit and the Massachusetts Solid Waste Regulations. The facility's transfer station and collection center also accepts waste oil, paint and paint-related products, cardboard, comingled waste, brush and yard waste, batteries, universal waste (fluorescent

light bulbs, mercury containing items, nickel cadmium and lithium batteries), tires, scrap metal, CFC appliances, and cathode ray tubes (CRTs).

The landfill is prohibited from accepting:

- Hazardous wastes,
- PCB wastes,
- Special wastes,
- Other prohibited wastes.

Each of these categories of prohibited wastes is described in the following sections.

2.1 Hazardous Wastes

Hazardous waste is regulated under RCRA, Subtitle C. A waste is hazardous if it:

- (1) is listed as hazardous waste in 40 CFR 261, Subpart D, or
- (2) has the characteristics of hazardous waste as defined in 40 CFR 261, Subpart C.

The hazardous characteristics are:

- Ignitability,
- Corrosivity,
- Reactivity,
- Toxicity.

Ignitability

Any waste having a flash point of 140°F or less falls into this category. Flash point is the temperature at which a liquid gives off vapors that will ignite when an open flame is applied.

Corrosivity

A substance having a pH of 2.0 or lower or 12.5 or greater.

Reactivity

A waste is reactive if it is normally unstable; reacts violently with water; forms an explosive mixture with water; contains quantities of cyanide or sulfur that could be released to the air; or can easily be detonated or exploded.

Toxicity

The Toxicity Characteristic Leaching Procedure (TCLP) is a laboratory test (Method 1311 in EPA SW-846) where an acid solution is passed through a sample of the waste. The acid solution containing the material it has extracted is tested for a number of constituents that fall into three general categories: heavy metals, pesticides, and organic solvents.

If the regulatory levels for any constituents are exceeded, the waste is hazardous. The following table shows the toxic contaminants and their respective regulatory levels.

TOXICITY CONSTITUENTS AND REGULATORY LEVELS (mg/L)			
CONSTITUENT	REGULATORY LEVEL	CONSTITUENT	REGULATORY LEVEL
Arsenic	5.0	Hexachlorobenzene	0.13
Barium	100	Hexachlor 01,3-butadiene	0.5
Benzene	0.5	Hexachlorethane	3.0
Cadmium	1.0	Lead	5.0
Carbon Tetrachloride	0.5	Lindane	0.4
Chordane	0.03	Mercury	0.2
Chlorobenzene	100	Methoxychlor	10.0
Chloroform	6.0	Methyl ethyl ketone	200
Chromium	5.0	Nitrobenzene	2.0
m-Cresol	200	Pentachlorophenol	100
o-Cresol	200	Pyridine	5.0
p-Cresol	200	Selenium	1.0
Cresol	200	Silver	5.0
1,4-Dichlorobenzene	7.5	Tetrachloroethylene	0.7
1,2-Dichlorobenzene	0.5	Toxaphene	0.5
1,1-Dichloroethylene	0.7	Trichloroethylene	0.5
2,4-Dichlorophenoxyacetic	10.0	2,4,5-Tichlorophenol	400
2,4-Dinitrotoluene	0.13	2,4,6-Tichlorophenol	2.0
Endrin	0.02	2,4,5-TP (Silvex)	1.0
Heptachlor (and its hydroxide)	0.008	Vinyl Chloride	0.2

Regulated hazardous waste must be disposed at a permitted hazardous waste disposal facility. Any material contaminated by a hazardous waste is also deemed to be a hazardous waste. RCRA permits are required to store, transport, and treat hazardous waste.

The USEPA/Massachusetts Department of Environmental Protection (MADEP) have given exemptions from storage, transport, and disposal requirements to certain generators based on source and quantities. Hazardous waste generated by households during their normal course of activities is exempt from regulation. Regulated generators must notify the USEPA/MADEP that they generate hazardous waste and receive an identification number. Many states have lower limits and more restrictive regulations. In the Commonwealth of Massachusetts, categories of hazardous waste generators are as follows:

Large Quantity Generators (LQG) – Generate more than 1,000 kilograms (2,200 lbs) (265 gallons) of hazardous waste in a month, or more than 1 kilogram of acutely hazardous waste (acutely hazardous waste is listed in the Massachusetts regulation, 310 CMR 30.136). The

waste must be shipped within 90 days. There is no limit to the amount which can be accumulated.

Small Quantity Generators (SQG) — Generate less than 1,000 kilograms (<2,200 lbs or <265 gallons) of hazardous waste in a month, and/or less that 1 kilogram of acutely hazardous waste. The waste must be shipped within 180 days and is limited to 6,000 kilograms in underground tanks and 2,000 kilograms (500 to 550 gallons) in aboveground containers.

Very Small Quantity Generators (VSQG) – Generate less than 100 kilograms (<200 lbs or <25 to 27 gallons) in a month and generate no acutely hazardous waste.

2.2 PCB Wastes

The USEPA Toxic Substances Control Act (TSCA) regulates PCBs based on the concentration of PCBs in the waste. The regulations contained in 40 CFR Part 761 contain these requirements:

- Waste containing more than 500 ppm of PCBs must be incinerated.
- Waste containing from 50 to 500 ppm may be disposed of in accordance with the following:
 - (1) For mineral oil dielectric fluid, in a high efficiency boiler according to § 761.71(a).
 - (2) For liquids other than mineral oil dielectric fluid, in a high efficiency boiler according to § 761.71(b).
 - (3) For liquids from incidental sources, such as precipitation, condensation, leachate or load separation and are associated with PCB Articles or non-liquid PCB wastes, in a chemical waste landfill which complies with § 761.75
- The regulations do not address wastes containing less than 50 ppm of PCBs.

2.3 Other Prohibited Wastes

Other wastes prohibited from being disposed at the Holyoke Sanitary Landfill include:

WASTE	BASIS OF PROHIBITION	
Radioactive Wastes	Nuclear Regulatory Commission regulations	
Bulk Liquids	310 CMR 19.130 (7)	
Medical Wastes (infectious)	310 CMR 19.061(6)(c)	
Glass Containers	310 CMR 19.017 MA State Waste Ban	
Recycable Paper	310 CMR 19.017 MA State Waste Ban	
Lead-acid Batteries	310 CMR 19.017 MA State Waste Ban	
Single Resin Narrow Necked Plastics	310 CMR 19.017 MA State Waste Ban	
Metal Containers	310 CMR 19.017 MA State Waste Ban	
White Goods/CFC Containing White Goods	310 CMR 19.017 MA State Waste Ban	
Whole Tires	310 CMR 19.017 MA State Waste Ban	
Cathode Ray Tubes	310 CMR 19.017 MA State Waste Ban	
Yard Waste	310 CMR 19.017 MA State Waste Ban	

2.4 Special Wastes

Solid wastes that are determined not to fall within one of the previously described prohibited waste categories, but that are not approved as "special wastes" will not be accepted for disposal at the landfill. Special wastes are defined by 310 CMR 19.006 as, "...any solid waste that is determined not to be hazardous waste pursuant to 310 CMR 30.000 and that exists in such a quantity or in such a chemical or physical state, or any combination thereof, so that particular management controls are required to prevent an adverse impact from the collection, transport, transfer, storage, processing, treatment or disposal of the waste." Listed special wastes include asbestos waste, infectious wastes, wastewater treatment sludges, and other types of special wastes that require special handling at the landfill in order to control odor, dust, and other adverse impacts. Disposal of special wastes at the Holyoke Sanitary Landfill is prohibited and incoming loads will be inspected for the presence of special wastes. Loads identified as containing special wastes will be rejected from the landfill and the necessary documentation will be completed and retained on file.

3.0 LOAD INSPECTION PROGRAM

The purpose of the load inspection program is to detect prohibited wastes and discourage their disposal at this facility.

3.1 Customer Notification

A key component of the load inspection program is the notification of customers that certain wastes are unacceptable for disposal at the facility. Customers will also be notified that they retain responsibility for any prohibited wastes detected in their load. This notification process is accomplished through the use of signs and notices.

A sign will be posted near the entrance to the facility. The sign will list wastes that are prohibited and also state that a random load inspection program is in effect.

Notices with a list of prohibited wastes will be periodically distributed at the gate house.

3.2 Procedures at the Gate House

The initial step in the inspection program is to review incoming loads at the gate house. The gate house staff will observe incoming loads for indication of the presence of prohibited wastes. Should facility staff encounter suspicious-looking loads, they will summon appropriate landfill personnel for further evaluation of the load. If prohibited wastes are identified during inspection of a load, the prohibited portion will be rejected and not allowed into the disposal area. The inspector is then required to complete a Load Rejection Report which details the reasons for rejection of the load for disposal. A copy of a Load Rejection Report is included in Attachment D. If hazardous or PCB wastes are detected, the entire load will be rejected.

3.3 Random Load Inspection Procedures

Random load inspections will take place at the inspection pad. The major elements of load inspections are:

- Spreading, breaking up, and visually examining wastes,
- Flagging suspicious wastes,
- Conducting field tests,
- Collecting samples for lab tests,
- Maintaining proper records.

Loads to be inspected will be selected at random and the driver will be notified of the inspection. About 1% of commercial or industrial haulers (front loaders, roll-offs, dump trucks) should be inspected with a minimum of 50 vehicles per year. These inspections should take place at the time the Massachusetts Waste Ban inspection is occurring.

The Compliance Manager or the Recycling Coordinator will be the designated inspector who will be responsible for conducting periodic load inspections. Back-up personnel will also be trained as necessary.

At the disposal area, the driver will be instructed to pull forward while discharging the wastes into a long, narrow windrow. The inspector will tear down the windrow using a rake and/or shovel working along both sides of the pile. The material will be carefully observed for prohibited wastes.

During the inspection, the load inspector will complete the Load Inspection Report (Attachment B). After completion of the inspection, the facility staff member who was responsible for conducting the inspection will complete the Waste Load Inspection Summary Report. This report provides a quick visual reference for the Gate House personnel as to

which generators have gone through the inspection process. A copy of the Waste Load Inspection Summary Report is included as <u>Attachment C.</u>

3.4 Identifying Prohibited Wastes

The load inspector will use a variety of methods to detect prohibited wastes, including:

- Questioning the driver about the source of the load and the nature of generators on the route.
- Examining product labels, especially warning labels.
- Examining liquids in containers for rejection.
- Examining sludges, powders, granular material or materials with unusual colors for rejection and later evaluation.
- Inspecting containers to ensure that they are empty or do not contain prohibited wastes.
- Evaluating the load for odors that are not characteristic of municipal solid waste. Inspectors should never deliberately inhale vapors from suspicious materials or containers because this may lead to injury or death.
- Searching for special items that have a high probability of containing prohibited waste such as:
 - > transformers
 - > batteries
 - > filters
 - > compressors (freon)
 - > mechanical equipment (capacitors)
 - > red bags (medical waste)
 - > bags that may contain asbestos.
- Identifying obvious prohibited wastes such as tires and yard waste.

3.5 Radioactive Load Management Procedures

Management procedures relative to radioactive loads transported from or received at Holyoke Sanitary Landfill are described below.

3.5.1 Loads Not Identified at Holyoke Sanitary Landfill

The following procedures have been developed for Waste Management transportation personnel who deliver waste to treatment, storage or disposal facilities (TSDF), other than Waste Management facilities. In the event that a load containing radioactive material is identified in an incoming load at the TSDF, the following procedures will be followed by Waste Management personnel:

- 1) Contact hauling operations personnel.
- 2) Ensure that the receiving facility generates a reading on their radiation monitor.

3) Collect as much relevant vehicle information as possible.

4) Request that the receiving facility park the load for 12 to 24 hours and then take another reading. If they refuse to allow the equipment to stay at their location, go to step 6.

5) If the reading has altered (lowered) substantially, suggest that the vehicle be staged there for another 24 hours and a subsequent reading be taken. Repeat the process until material no longer triggers the monitor alarm. If no change, proceed to step 6.

6) In order to remove the vehicle to a safe location, specifically Holyoke/Granby or Chicopee Landfills, a Department of Transportation (DOT) Exemption must be generated. The Massachusetts Department of Public Health, Radiation Control Program (RCP), issues these exemptions. When contacting the RCP, ask for the Officer of the Day at:

7)

Department of Public Health 174 Portland Street, 5th Floor Boston, Massachusetts 02114 (617) 727-6214 – Telephone (617) 727-2098 – Fax

- 8) Once DOT Exemption is obtained, move to a Waste Management Landfill. Contact landfill operations management to determine whether it should be Granby or Chicopee landfill.
- 9) Transport to assigned landfill and take a reading on the landfill's radiation monitor. If the load still sets off the radiation detectors, park the load and proceed to step 9. If the load doesn't set off the radiation alarm, bury at the active face. It is important to contact the RCP Officer of the Day and inform them that the material did not alarm Waste Management's detectors and was safely managed at the landfill. The RCP will also specify if any paperwork needs to be submitted.
- 10) If the landfill radiation detectors alarm, then contact a Health Physicist. WM contacts are: 1) Jim Tocci: 413/323-9571 2) Dr. S. Brahmaver: 413/784-5405
- 11) Follow their instructions. They will instruct personnel in the proper management of the load.
- 12) Ensure a copy of the Health Physicist's report is received at the time of the visit.
- 13) Submit a copy of the Health Physicist's report to the RCP.
- 14) Provide copies of all records and correspondences to:

Frank Sepiol Compliance Manager 600 New Ludlow Road South Hadley, MA 01075 1-413-534-8741 X-137

3.5.2 Loads Identified at Holyoke Sanitary Landfill

The following procedures are for incoming loads identified as containing radioactive material at the Holyoke Sanitary Landfill, and will be followed by Waste Management personnel:

1) Contact hauling operations personnel.

2) Ensure that the receiving facility generates a reading on their radiation monitor.

3) Collect as much relevant vehicle information as possible.

- 4) Request that the hauler/transporter park the load for 12 to 24 hours and then take another reading.
- 5) If the reading has altered (lowered) substantially, suggest that the vehicle be staged there for another 24 hours and subsequent reading be taken. Repeat process until material no longer triggers the monitor alarm. If no substantial change is noted after first reading, proceed to step 6.
- 6) If the landfill radiation detectors alarm, then contact a Health Physicist. WM contacts are: 1) Jim Tocci: 413/323-9571 2) Dr. S. Brahmavar: 413/784-5405 Follow their instructions. They will instruct personnel in the proper management of the load.
- 7) Ensure a copy of the Health Physicist's report is received at the time of their visit.
- 8) Provide copies of all records and correspondences to:

Frank Sepiol Compliance Manager 600 New Ludlow Road South Hadley, MA 01075 1-413-534-8741 X-137

The following list contains emergency phone numbers for Waste Management personnel:

Amber Dudley: 413/246-9365
Brian Moores: 413/374-1913
Dennis O'Connor: 413/335-6458
Frank Sepiol: 413-519-3916
Brian Schofield: 413/348-6270
Johathan Murray: 413/374-2745
Chris Lucarelle: 413/531-9904
Stephen Hosley: 508/735-2864

A complete list of emergency contact information is included with this plan in Attachment A.

3.6 Safety

Load inspectors should have the following equipment:

- Eye protection (safety glasses or goggles),
- Chemical resistant boots with puncture resistant soles,
- Chemical resistant gloves,
- Liquid repellent coveralls,
- Bright colored vest,
- Hard hat,
- Respiratory protection (at least asbestos level protection).

Workers involved in inspecting loads should successfully complete appropriate safety and first aid courses (such as OSHA 40 hour hazardous waste first response course).

First aid facilities and equipment should be readily available to the screening area. Shower heads for emergency flushing of eyes or skin are desirable. Decontamination areas for equipment and clothing may be needed.

4.0 MANAGING PROHIBITED WASTES

The results of the load inspection will identify wastes as:

- Acceptable,
- Unknown pending further testing, or
- Prohibited.

Acceptable waste can be moved from the inspection pad to the active face. The pad should be cleaned to the extent that materials from this inspection do not impact the next load to be inspected.

Unknown wastes that are still undergoing analysis need to be properly segregated and protected. This means that the waste(s) must be:

- Protected against the elements, rain, wind, etc.,
- Secured against unauthorized removal,
- Isolated from other wastes and activities.

Site personnel should contact the Compliance Manager with any questions on sampling methods and test parameters. At the discretion of the Site Manager, unknown wastes may be rejected and removed by the hauler.

Prohibited wastes detected during the inspection should be returned immediately to the hauler. If the hauler or generator is not available, the wastes will be safely stored for later transport to an appropriate treatment, storage, or disposal facility.

If hazardous wastes or PCBs are detected, the Subtitle D regulations require the facility to notify the MADEP.

Hazardous wastes may be stored at the Holyoke Sanitary Landfill for 180 days or less without a storage license, provided that the requirements of 310 CMR 30.351 (On-Site Accumulation by Small Quantity Generators) is adhered to.

Any hauler transporting hazardous waste from the landfill must comply with Massachusetts DEP Hazardous Waste Regulations 310 CMR 30.000, and is required to:

- Obtain an EPA Identification Number.
- Package the waste in accordance with (DOT) regulations under 49 CFR, Parts 173, 178, and 179. The container must be labeled, marked, and display a placard in accordance with DOT regulations on hazardous waste materials under 49 CFR, Part 172.
- Properly manifest the waste, designating a permitted facility to treat, store, or dispose of the hazardous waste.

PCB wastes detected at a Municipal Solid Waste Landfill (MSWLF) must be stored, transported, and disposed according to 40 CFR, Part 761.

5.0 TRAINING

Load inspectors, site managers, equipment operators, and gate house staff will be trained in the contents of this plan. Training will address the following topics:

- Customer notification, inspection pad construction, and load inspection procedures.
- Identification of hazardous wastes, PCB wastes and other prohibited wastes.
- Waste handling procedures (acceptable and prohibited wastes).
- Health and safety.
- Record keeping.

Documentation of training should be maintained with this Plan. Examples of Training Records are included with this plan in <u>Attachment E</u>.

6.0 RECORD KEEPING

The following records will be maintained at the facility:

- Load inspection reports.
- Records of hazardous or PCB waste notifications.
- Training records.

Load inspection reports will be completed for each load that is inspected. Information on the attached load inspection report (see <u>Attachment B</u>) will be provided.

MADEP or USEPA notification is required whenever a hazardous or PCB waste is detected. Records of these notifications will be kept and will include the date and time of notification, agency and individual contacted with phone numbers, and the information that was reported.

Records documenting the successful completion of training will be maintained. Training session records will identify (1) the topics covered, (2) the date of the training session, (3) the instructor's name/title, (4) the employee's signatures, (5) the employee's job titles, and (6) documentation by the trainer of successful completion.

OPERATIONS & MAINTENANCE PLAN

Golder Associates Inc.

540 North Commercial Street, Suite 250 Manchester, NH 03101-1146 Telephone (603) 668-0880 Fax (603) 668-1199 www.golder.com



HOLYOKE SANITARY LANDFILL, INC.

OPERATIONS AND MAINTENANCE PLAN FOR THE GRANBY SANITARY LANDFILL

Prepared for:

Holyoke Sanitary Landfill, Inc. 600 New Ludlow Road South Hadley, Massachusetts 01075

Prepared by:

Golder Associates Inc. 540 North Commercial Street Suite 250 Manchester, NH 03101

September 1995 Revised: July 2003 Revised: February 2004 Revised: October 2004 Revised: February 2005

Our Ref.: 043-6842



Our Ref.: 043-6842 February 2005

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Holyoke Sanitary Landfill, Inc. Management Organization Granby Sanitary Landfill

1.0 **EMERGENCY CONTACT NUMBERS**

FACILITY ADDRESS:

Holyoke Sanitary Landfill, Inc. (HSLI)

Granby Sanitary Landfill

11 New Ludlow Road 600 New Ludlow Road South Hadley, MA 01075 Granby, MA 01033 Phone: (413) 534-8741

Phone: (413) 467-3200

RESPONSIBLE MANAGERS

Site Manager: **Brian Santos** Bruce Griswold Alternate Manager:

Jonathan Murray District Manager: Market Area Engineer: Bob Magnusson

District Environmental Manager: Tom Heaton **EMERGENCY CONTACT INFORMATION**

Jonathan Murray: (413) 374-2745 (Mobile) **Brain Santos:** (508) 735-0441 (Mobile)

> (413) 436-3253 (Home) (413) 283-5140 (Home)

(413) 237-3830 (Mobile) Tom Heaton: (413) 246-0828 (Mobile) Bruce Griswold:

(413) 567-6996 (Home) (413) 592-8162 (Home).

Bob Magnusson (508) 450-8522 (Mobile)

Business Office

(603) 772-2719 (Home) 24-Hour Contact (413) 539-2746

Occupational Health Clinic:

Work Connection (Holyoke Hospital)

575 Beech Street Holyoke, MA 01040

Phone (413) 534-2546 Contact: Speak to Staff On-Duty

EMERGENCY TELEPHONE NUMBERS

Granby Fire/Ambulance (emergency): 911

Granby Fire/Ambulance (non emergency): (413) 467-9696

Granby Police(emergency): 911

Granby Police(non emergency): (413) 467-9222

Granby Board of Health: (413) 467-7179 Environmental Products & Services: (413) 592-9252

Poison Control: (800) 682-9211

National Response Center: (800) 424-8802

MADEP Western Regional Office: (413) 784-1100

Business Health Clinic: (413) 784-5860

HLSI South Hadley Office: (413) 534-8741

Chicopee Civil Defense: (413) 467-3503

ChemTrec (Product Info): (880) 424-9300

SERC (MADEP 785-5327): (617) 566-4500

Clean Harbors: (617) 849-1800 and (617) 849-1807

Radiation Control Program

(Dept. of Public Health): (617) 727-6214

2.0 INTRODUCTION

The Operations and Maintenance Plan (O&M Plan) contained herein provides guidance to operators in complying with 310 CMR 19.130: Operations and Maintenance Requirements for Landfills. The O&M Plan in conjunction with the Granby Sanitary Landfill facility's permit to operate and the General Safety and Landfill Conduct Rules and Regulations will provide the operating methods and procedures relative to the Granby Sanitary Landfill. Currently, this Plan is being revised to incorporate the Vertical Expansion, Stages 2, 3, and 4 at the Granby Sanitary Landfill (BWP SW 8, Transmittal Nos. W058138, W059899, and W059900, respectively) and to comply with the site assignment. This plan will be reviewed and updated as site conditions at the facility are altered or expanded.

3.0 PERSONNEL MANAGEMENT AND STAFFING

Holyoke Sanitary Landfill, Inc. (HSLI) is the owner and operator of the Granby Sanitary Landfill. HSLI has offices located at 600 New Ludlow Road in South Hadley, Massachusetts. HSLI is a wholly owned subsidiary of Waste Management of Massachusetts located at 4 Technology Drive in Westborough, Massachusetts. HSLI reserves the right to evaluate the management organization at the Granby Sanitary Landfill and make changes to titles or responsibilities identified in the O&M Plan.

3.1 Management Organization

HSLI personnel will be used to manage and operate the Granby Sanitary Landfill. Approximately 10 hours of motor equipment operation will be required on a daily basis to perform waste handling, processing and disposal. Most equipment will be used to spread and compact incoming waste and to place appropriate amounts of daily cover. Safety training programs at the site will be the responsibility of the Site Manager and supervised by the District Manager. Figure 1 presents the Granby Sanitary Landfill management organization.

3.2 Personnel Responsibilities

The following discussion presents an overview of personnel responsibilities and duties including lines of authority.

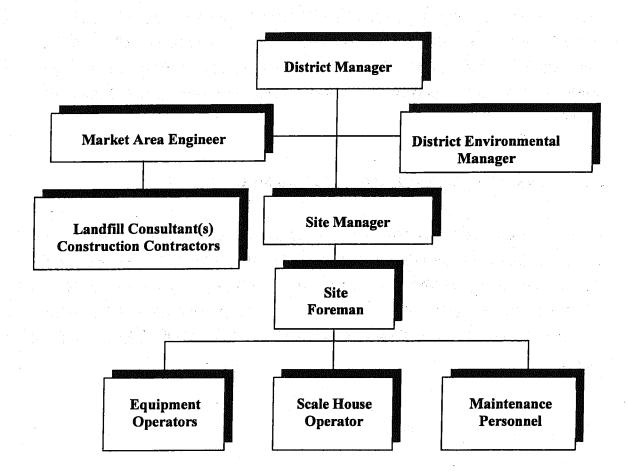


Figure 1: Holyoke Sanitary Landfill, Inc.
Management Organization
Granby Sanitary Landfill

District Manager

The District Manager is responsible for the proper and efficient operation of the Granby Sanitary Landfill. The District Manager or his representative will be available at all times during work hours and on call during off hours. The District Manager is responsible for:

- Ensuring that the operation functions in compliance with the rules, regulations, and permits of the Massachusetts Department of Environmental Protection (MADEP);
- Planning and scheduling the placement of final cover and other closure activities;
- Ensuring that facilities and equipment are properly maintained;
- Developing cost analyses for the operation, project expenditures, and preparing budget requests;
- Managing all monitoring, sampling, testing, and evaluating activities with appropriate entities;
- Ensuring that safety precautions for employees are exercised and adhered to including supervision of safety training programs; and
- Transmitting all required reports to the MADEP.

Market Area Engineer

The Market Area Engineer is responsible for the design, permitting, and landfill construction activities at the Granby Sanitary Landfill. The Market Area Engineer maintains routine communications with the District Manager, District Environmental Manager, and Site Manager regarding site permitting, design, and construction activities under his supervision. The responsibilities of the Market Area Engineer include the following:

- Ensuring that the operation functions in compliance with the rules, regulations, and permits of the Massachusetts Department of Environmental Protection (MADEP);
- Coordinating with and managing activities of the Landfill Consultant;
- Coordinating and managing landfill construction including the design and permitting of the base liner, final cover, and landfill gas systems;
- Evaluating cost analyses for the operation, project expenditures, and preparing budget requests; and
- Assisting with environmental monitoring.

District Environmental Manager

The District Environmental Manager is responsible for implementing the environmental compliance program at the Granby Sanitary Landfill. The District Environmental Manager is to maintain routine communication with the Market Area Engineer, District Manager and Site Manager. The District Environmental Manager or his representative will be available at all times during work hours and on call during off hours. The District Environmental Manager is responsible for:

- Ensuring acceptable implementation of the Waste Acceptance Plan including proper management of waste, approval of certain wastes as necessary, responding to receipt of prohibited wastes, and submitting the necessary compliance reports;
- Developing, implementing, and maintaining a training schedule for required environmental training;
- Preparing the necessary compliance reports for MADEP;
- Monitoring the state regulations that impact site operations; and
- Assisting with District due diligence.

Landfill Consultant

An independent professional engineering firm(s) knowledgeable in the permitting, design, operations and construction of waste handling facilities and landfills will be employed by HSLI as necessary. The Landfill Consultant maintains regular communication with the Market Area Engineer. Typical consulting services provided by the Landfill Consultant include:

- Short- and long-term planning;
- Facility permitting and design;
- Operations inspections;
- Regulatory compliance reviews;
- Operational assistance; and
- Environmental monitoring.

Site Manager

The Site Manager works under the general supervision of the District Manager and is responsible for direct supervision of all operations personnel assigned to the facility. In this capacity, the Site Manager is responsible for proper and efficient operation of the facility. The Site Manager or his designated representative will be available during work hours and on call during off hours. The Site Manager is responsible for:

- Supervising the waste operations;
- Ensuring that the operation functions in compliance with the rules, regulations, and permits of the MADEP;
- Ensuring that the proper landfill procedures are employed;
- Implementing the directions of the District Manager;
- Planning and scheduling the utilization of equipment, personnel and materials;
- Reporting to and conferring with superiors regarding personnel, equipment and materials necessary for landfill operations;
- Implementing and supervising improvements or changes in daily facility routines;
- Inspecting all facilities after major storm events;
- Directing the landfill cover soil operations and various other crews, to insure an integrated daily activity at the landfill site;
- Ensuring that safety precautions for employees are exercised and adhered to;
- Conducting safety training programs at the landfill including monthly safety meetings; and
- Performing other necessary landfill operation related duties as required.

Site Foreman

The Site Foreman works under the general supervision of the Site Manager and is responsible for direct supervision of all operations personnel assigned to the landfill. In this capacity, the Site Foreman is responsible for proper and efficient operation of the landfill. The Site Foreman or his designated representative will be available during work hours and on call during off-hours. The Site Foreman is responsible for:

- Supervising the operation of the landfill;
- Ensuring that the operation functions in compliance with the rules, regulations, and permits of the MADEP;

- Ensuring that the proper landfill procedures are employed;
- Implementing the directions of the Site Manager;
- Planning and scheduling the utilization of equipment, workers and materials.
- Reporting to and conferring with superiors regarding workers, equipment and materials necessary for landfill operations;
- Implementing and supervising improvements or changes in daily facility routines;
- Inspecting all facilities after major storm events;
- Directing the landfill cover soil operations and various other crews, to insure an integrated daily activity at the landfill site;
- Ensuring that safety precautions for employees are exercised and adhered to; and
- Performing other necessary landfill operation related duties as required.

Maintenance Mechanic

A Maintenance Mechanic will be responsible for a variety of heavy equipment repair and machinist tasks requiring a thorough knowledge of the trade. The Maintenance Mechanic will report directly to the Site Manager and receive general instructions regarding the necessary tasks to perform. Other maintenance personnel may work under the supervision of the Maintenance Mechanic. The Maintenance Mechanic is responsible for:

- Inspecting, checking, and diagnosing equipment for type and extent of repairs;
- Performing skilled operations in making general repairs, as well as performing preventive maintenance on such motor and mechanical equipment as autos, trucks, power rollers, shovels and graders, and loaders;
- Facing valves and fitting new bearings, pistons, and rings;
- Adjusting connecting rods and bearings;
- Repairing or overhauling electrical, hydraulic, cooling systems, brake systems, clutches, differentials, transmissions, and front and rear axles;
- Welding equipment and parts by means of electric and acetylene welding;
- Repairing generators, starters, lights and ignition;
- Adjusting steering mechanisms and aligning wheels; and
- Tuning motors and adjusting carburetors.

Scale House Operator

The Scale House Operator will report directly to the Site Manager and receive general instructions regarding the necessary tasks to perform. The Scale House Operator is responsible for:

- Control of traffic flow;
- Direction of traffic;
- Communication by radio to other operations personnel; and
- Monitoring waste quality.

Equipment Operator

Equipment Operators are responsible for the safe and efficient operation of various types of construction equipment. The operators report directly to the Site Manager and are responsible for the operation of gasoline or diesel powered equipment with wheeled or crawler-type traction, as well as performing a variety of manual tasks in connection with such operations. The Equipment Operators are responsible for:

- Operating waste compactors, bulldozers, excavators, bucket loader, haul trucks and other waste handling and earth moving equipment;
- Checking equipment before starting for fuel, oil and mechanical condition;
- Performing manual labor such as material handling and helping maintenance crew; and
- May supervise a small group of laborers as specific tasks require.

3.3 Employee Training

Granby Sanitary Landfill personnel will be provided with on-the-job instruction on the performance of their assigned duties at the facility under the direction of the Site Manager. This training will include instruction in various aspects of landfill management procedures as well as inspection and maintenance procedures. The employees will be instructed in emergency response procedures and the proper use of both facility and personal protective and emergency equipment in accordance with the safety program developed by HSLI. Safety training programs at the landfill site will be the responsibility of the Site Manager and will be supervised by the District Manager.

Minimum of monthly safety meetings are held under the direction of the Site Manager. Topics of discussion will include safe equipment operation, trenching procedures, emergency action response, load inspection, etc.

4.0 SITE FACILITIES AND EQUIPMENT

4.1 Existing Facilities

Facilities for the Granby Sanitary Landfill are contained in the scale house building located inside the entrance of the site. This heated building houses a bathroom, scale house operations area, telephone, and a two way radio. Drinking water is also available to all personnel at the scale house.

4.2 Equipment

The equipment available for use at the Granby Sanitary Landfill consists of the following:

- Landfill Compactor (80,000 lbs. or larger)
- CAT D6LGP or comparable bulldozer
- CAT 966 or comparable loader
- Track Excavator
- Water Truck
- Site Truck
- Roll-off Containers
- In addition, back-up equipment is available to HSLI within 24 to 48 hours if necessary.

Routine maintenance of all equipment and machinery is handled by HSLI personnel, including certain major repair work. Other major repairs requiring special equipment and skills are made by private repair services. To minimize idling time equipment will be shut down during extended breaks or other prolonged periods of inactivity.

5.0 OPERATIONAL CONTROLS

5.1 Hours of Operation

The Granby Sanitary Landfill will receive waste Monday through Saturday from 7:00 AM to 4:00 PM.

5.2 Access and Traffic Flow Controls

Access to the facility is from New Ludlow Road. A paved access road leads into the site extending approximately 1,500 feet from New Ludlow Road to the base of Phases 1, 2 and 3. Access to waste disposal operations will be provided by a gravel road along the western and southern (Stage 1A) edge of the Vertical Expansion and then to the active disposal area. Maintenance of the access roads is currently, and will continue to be, performed by HSLI personnel using earthmoving equipment.

5.3 Signs

Existing signs will be maintained by HSLI personnel. The site entrance sign shows the hours of operation of the Granby Sanitary Landfill, lists wastes not accepted for disposal, and provides other general site regulations. Once into the site, signs are placed along the access road to indicate where users should drive, where waste should be deposited, and how one exits from the site.

5.4 Rules and Regulations

Waste processing and disposal activities will be operated and maintained in conformance with the rules and regulations set forth by the MADEP, and other applicable Federal, State, and local rules and regulations.

Operation of the landfill will be in accordance with all specific requirements set forth in applicable permit requirements. Access control, operations, maintenance, inspection, monitoring, record keeping and reporting shall be in conformance with the requirements of the MADEP.

6.0 WASTE QUANTITIES AND TYPES

In accordance with the approved Authorization to Operate (Vertical Expansion Stage 1B BWP SW 10, Transmittal No. W054294), HSLI's waste disposal is managed to comply with the following:

- The Facility shall accept no more than 235,000 tons per calendar year of solid waste including MSW, Non-MSW, C&D Waste, and Residuals from Recycling Facilities; provided, however, that the Facility may only accept an annual average (based on 313 operating days per calendar year) of 750 tons per day and accept no more than 1000 tons per day on any one day.
- The Facility shall also comply with the following monthly and quarterly tonnage limits on MSW and total solid waste:
 - (A) 25,000 tons of solid waste per calendar month.
 - (B) 70,000 tons of solid waste per 3-month quarter.
- Notwithstanding the foregoing waste restrictions, the Facility may accept other wastes, such as bulky wastes or contaminated soils, so long as applicable special waste, site assignment, MEPA requirements and any other restrictions are met.
- Types of Acceptable Waste The Facility may accept wastes subject to the following restrictions:
 - (A) Restrictions on acceptable wastes contained in any local, state or federal permits, approvals or regulations, site assignments, or MEPA determinations; and
 - (B) Restrictions imposed under approved waste control plans in accordance with the requirements of 310 CMR 19.017, or, if applicable, the provisions of 310 CMR 19.061, regulating the handling and disposal of special wastes.
- Special Wastes In accordance with the requirements of 310 CMR 19.061, no special wastes shall be accepted at this Landfill Facility, unless the Applicant applies for and receives from the Department, an Approval to Mange Special Wastes.
- Reserve Capacity Notwithstanding the capacity and waste-type restrictions in this permit, the Facility may accept additional waste (MSW and/or Non-MSW) upon request to and written approval by the Department. The Department may grant such approval if it determines that a capacity shortfall may occur and that alternate disposal facilities are not able to handle the shortfall adequately.

7.0 WASTE HANDLING PROCEDURES

7.1 Receipt and Monitoring of Incoming Waste

The Granby Sanitary Landfill will only accept waste as provided in existing permits and as described in the site's Waste Acceptance Plan. HSLI personnel at the scale house are responsible for providing passage into the facility and ensuring the waste has come from a suitable source.

7.2 Waste Control and Compliance with Waste Bans

Operations of all stages will be in accordance with the existing waste control methods in place at the Granby Sanitary Landfill. HSLI's procedures for monitoring waste disposal restrictions are in place and approved by MADEP as conditions to the active operating permits.

7.3 Recycling/Composting Plan

Operation of all stages will be in accordance with existing recycling/composting activities for the Granby Sanitary Landfill.

7.4 Hazardous Waste Management

The Granby Sanitary Landfill will continue to be diligent in the identification and screening of hazardous waste, solid or liquid as well as special waste and has instituted programs to ensure that such waste is not landfilled. In addition the majority of communities using the Granby Sanitary Landfill have instituted household hazardous waste collection programs.

The first step in the existing monitoring program is to know the customers. Since the customers using the Granby Sanitary Landfill do not change much from year to year, the majority of the waste stream is well known to the facility operators. Any problems with regular customers are reported immediately to the Site Manager who reports directly to the District Manager. The customer is then contacted immediately with a remedial action plan.

The facility operators and scale house attendants are trained to identify suspicious or unacceptable wastes. If such waste is on a truck, the truck is stopped, turned around and refused entry to the facility. If such waste is identified after the load is dumped at the working face, then the waste is placed to the side of the working face and the company responsible for dumping it is required to remove it. In all such instances, the District Compliance Manager, District Manager, and Site Manager are notified and kept informed. HSLI reserves the right at all times to suspend the dumping privileges of any customer that delivers unacceptable waste.

7.5 Placement, Compaction and Handling of Waste

When waste is deposited at the work area by incoming vehicles, the landfill equipment operators will then move the waste onto the working face, compact it, and apply six inches of cover or approved alternative daily cover (ADC) at the conclusion of the working day. The following conditions will be adhered to during operations:

- The working face width will be restricted to the smallest area practicable based upon peak daily incoming waste rate;
- Lift height will be a maximum of six to ten feet, compacted; and
- A minimum of six inches of cover or approved ADC will be applied at the end of each day.

A tarpaulin system is an approved ADC to the six inches of cover soil. The tarpaulin system will adhere to the conditions of the Major Design Modification Gas System and Alternative Daily Cover, BWP SW11, Transmittal No. W033399, dated March 25, 2003.

The working face of the disposal area is typically in the center of waste disposal operations. The traffic routing within the disposal area and the operation of landfill equipment must all be coordinated to ensure proper filling operations at the working face. In addition, 15-foot litter fencing will be erected around the active filling area. As the waste disposal operations move through the active stage, the litter fencing will be moved or extended to minimize wind blown litter.

7.6 Placement of First Lift of Waste Over Lined Landfill Base

The first lift of waste needs to be placed with extreme care to prevent damage to the underlying liner system. Placement in each operational phase will begin at the edge of the stage so that vehicles do not drive directly on the drainage layer. Landfill compaction equipment will spread and compact the waste in a manner which avoids running directly on the drainage layer.

Once a platform of compacted waste of sufficient size has been constructed to allow backing and turning the vehicles, the vehicles will be allowed to drive directly on the waste. Waste will be deposited in the inside edge of the platform and compactors will push the waste downward over the edge of the platform sideslope toward the liner system. Waste will not be pushed directly onto the liner system but will instead be allowed to come to repose by gravity.

All waste loads placed on the liner system will be more carefully inspected than will be the case for subsequent loads. The operator at the working face will carefully check for and remove any sharp objects which might damage the liner.

In the unlikely event it is believed a sharp object in the first lift may have been driven down into the liner system and there is the possibility of damage, waste in the area of suspected penetration will be removed down to the drainage layer and waste extending 25 feet in all directions from the edge of this area will also be removed. Once this is done, the drainage layer will be inspected for evidence of penetration. If there is such evidence, the upper 18 inches of the drainage layer will be carefully removed under the inspection of the Landfill Consultant. The remaining six inches of sand will be carefully removed by hand with plastic-blade shovels to expose the base liner system. The geomembrane will be inspected by the Landfill Consultant. Damaged sections will be photographed, removed, and patched in accordance with specifications. Once accepted and certified, the geomembrane will be recovered.

8.0 LANDFILL DEVELOPMENT PLAN

A staged Landfill Development Plan will be implemented for the expansion and continued operation of the Granby Sanitary Landfill. Development of the site in stages provides the following advantages:

- Limited operational area; and
- Limited area for leachate generation.

The Landfill Development Plan will address site preparation construction, site operation, and closure construction activities for each stage of the landfill development.

8.1 Operational Sequence

The operational sequence of the proposed vertical expansion is shown in the permit drawings and described as follows. To control noise emissions and odors initial filling will begin at the western side of Stage 1B, progress to the east along the outer edge of the stage and then into the center. Upon achieving interim refuse grades, operations will begin in Stage 1A, along the northern and western sides. After filling along the outer edges, operations will again move into the center of the stage. Access will be from the existing site access road and continue to the north along the eastern perimeter of Stage 1A. As operations evolve, the actual location and grades of access roads will likely be adjusted to improve filling efficiency. Filling in Stages 2 through 4 will follow similar filling patterns. Waste will be initially placed along the outer edge of the stage and then move into the center of the stage.

8.2 Over Liner Settlement Monitoring

HSLI will periodically monitor settlement of the over liner for Stages 1A and 1B and future Stages 2, 3 and 4 as they become active. The settlement monitoring system for Stages 1A and 1B will be similar to that previously used for the Phase 5 settlement monitoring. The settlement monitoring system will consist of an elevation-measuring transducer moved through a dedicated conduit located in the baseliner subgrade fill. The transducer will measure elevation changes by means of liquid level pressure head differences related to a known benchmark.

Stage 1A contains two settlement monitoring conduits, and Stage 1B contains one. Each conduit is a 4-inch diameter SDR-17 HDPE pipe extending across the cell. Access to each conduit is from the west end for the Stage 1A conduits and from the north end for the Stage 1B conduit. The baseline profile was collected after installation and is the datum for future settlement readings. When not in use, the exposed ends of the conduit are closed with a blind flange to prevent fouling with soil or debris.

To obtain readings, the transducer is first pushed into the conduit using a fiberglass push rod. Readings are taken in incremental locations as the transducer is withdrawn. A graph of elevation versus horizontal distance is then produced and compared to the baseline measurements made prior to the initiation of landfill operations.

8.2.1 Operation Procedure

The following procedures should be used to monitor settlement of the over liner. At least two qualified technicians are needed to perform the recording of the settlement data.

Because of the weight, awkward size, and delicacy of the instrumentation, the spool should be moved as little as possible. The transducer probe should always be stationed lower than the spool to limit a suction effect that could draw air into the tubing and create bubbles. The spool should be transported from storage in the bed of a truck, preferably on top of a piece of scrap carpeting and the fiberboard shipping panel.

The spool should not be set directly on the ground. Either back the truck to the outlet of the pipes, or place the spool, carpeting, and fiberboard panel on staging, stable enough to prevent the spool from moving when being used. The spool should be placed close to the outlet of the settlement pipe so that increment markings on the transducer probe tubing do not wear unnecessarily because of excessive ground contact. The spool should be positioned so that the sensor tubing will enter the four-inch pipe with minimum bending. The spool and tubing should be shaded from direct sunlight to obtain more accurate results.

The calibration of the transducer should be checked before every series of measurements. The elevations of the liquid level within the sight glass in the hub of the spool, the invert of the four inch pipe, and the calibration benchmark located next to the work area need to be surveyed.

The readout box is turned on and the transducer probe is lowered to the calibration benchmark. The LED reading is compared to the difference in elevation between the benchmark and the water level indicator. If the accuracy is off by more than 10-20 mm, the instrument may need to be recalibrated. If the system is functioning properly then the testing can continue.

The instrument is pushed into the conduit using a fiberglass push rod. Measurements are taken as the instrument is withdrawn. Two measurements are recorded for each station. The first is the horizontal distance, in meters, from the outlet of the four inch pipe to the probe. This distance is read directly from markings on the nylon tube that is connected to the probe. The second measurement is the LED read-out on the spool that displays the vertical distance, in millimeters, from the liquid in the sight glass to the transducer probe.

The transducer probe remains at each station until the read-out stabilizes. The amount of time needed for stabilization depends on the manner in which the probe is pulled back through the pipe. For the least amount of stabilization time, the probe is pulled slowly and steadily to each station without jerking the tube.

The last measurement recorded is at the edge of the four inch pipe invert. This is set at Station 00+00 because at this point the probe is zero feet from the invert of the pipe. The vertical distance recorded at each station subtracted from the elevation of the liquid in the sight glass in hub of the spool gives the elevation of each station.

8.2.2 Reporting

The over liner elevation will be checked at five-meter intervals along the line of the settlement monitoring system. Readings will be taken monthly for the first six months of a landfill stage's operations and at the time of bi-monthly landfill inspections, thereafter. This will continue during the period of landfilling operations over the area of the settlement monitoring system. Results will

be reported on a graph that shows elevations along the conduit, based on the baseline data and the elevations determined from the transducer readings.

9.0 COVER MATERIAL MANAGEMENT

9.1 General Requirements

All cover materials shall be free of substances which would attract vectors and free of large objects which would hinder spreading and compacting or otherwise interfere with the proper functions of the cover.

9.2 Borrow Areas and Sources

Daily, intermediate, and final (if suitable) cover soils will be obtained primarily from off-site sources. HSLI maintains agreements to provide soil and cover materials to the site. Off-site cover materials will consist of contaminated soils, auto fluff, foundry sand and other materials that are acceptable under MADEP policy or beneficial use determinations. In addition, HSLI maintains a permit for the use of an ADC tarpaulin system.

9.3 Daily Cover

A minimum of six inches of compacted cover material or approved ADC must be applied on all exposed surfaces of waste at the close of each operating day to minimize exposure of the waste to the atmosphere. The daily cover should be placed in a manner to control flies, vectors, and other nuisances such as odors or litter. A 14-day stockpile of daily cover will be available on-site at all times. Any daily cover utilized must be easily graded and handled during all season weather conditions.

Alternatives to daily cover material, such as the approved tarpaulin system, or thickness may be proposed for possible use at the landfill. At a minimum, the alternative must offer equivalent performance to conventional daily cover materials. The use of an alternative daily cover shall occur only with the prior written approval of the MADEP, as required in 310 CMR 19.130(15)(b)(4).

9.4 Intermediate Cover

Intermediate cover will be placed as frequently as needed to meet the following criteria as required in CMR 19.130(15)(c):

- Over all areas in which there is no active working face for at least one month, six inches of additional cover soil, will be placed to provide a total cover soil thickness of 12 inches;
- Over all areas in which there is no active working face for at least 6 months, 12 inches of
 additional cover soil, meeting the requirements of intermediate cover, will be placed to
 provide a total cover soil thickness of 24 inches. This additional cover soil will provide
 temporary final cover until the capping system is installed. The intermediate layer will be
 vegetated to mitigate dust and enhance erosion control; and
- Intermediate cover soils shall be classified as GC, SC, CH, CL, or OH by the Unified Soil Classification System unless otherwise approved by MADEP.

To minimize the quantity of intermediate cover placed, operations will proceed at a rate and in a sequence which minimizes intermediate cover placement. Intermediate cover may by stripped from the refuse when an additional lift of waste is to be placed over it, provided a minimum of six inches of soil is left.

9.5 Final Cover

HSLI will notify MADEP in writing two weeks prior to the start of construction of the low permeability cap as required by CMR 19.130(31)(c)1. The final cover system shall be placed, tested and certified in conformance with the CQA/QC Plan. On behalf of HSLI, an independent professional engineer will notify MADEP in writing two weeks prior to the completion of the final cover.

9.6 Final Cover Grading Requirements

In order to minimize erosion, the sideslopes of the landfill and ponding of water on top of the landfill, final cover grading requirements have been established. The top slope of the landfill shall be sloped a minimum of five percent. The sideslopes shall be sloped no more than 33 percent (three horizontal to one vertical). Once established, the final cover must be maintained until at least 30

years after closure to prevent erosion and ensure the integrity of the landfill. If any damage is noted due to erosion, landfill activities or other causes, it shall be repaired as soon as possible. In addition, the measures and schedules needed to repair any problems with ponded water or erosion shall be described in writing by the inspecting engineers during the next due progress report for the landfill.

10.0 LEACHATE MANAGEMENT

The leachate collection operations and maintenance will be conducted according to the Leachate Collection and Removal System, Operations and Maintenance Plan (LCRS O&M Plan), dated February 2005. The Plan will be updated to include the logic control mechanisms required for the Stage 2, 3, and 4 pumps, in addition to the equipment installed, as the stages become active. At the present time for Stage 1, leachate from the main pump station, Stage 1A-1, and Stage 1A-2 is controlled by a programmable logic control system (PLC). The PLC operates the leachate removal system while complying with permitted discharge volumes and rates.

11.0 STORMWATER MANAGEMENT

Proposed developments to the stormwater management system design for the Vertical Expansion are presented in the Facility Design Plan. Maintenance of the stormwater management system as part of the Vertical Expansion will be according to the inspection and maintenance plan contained in the Stormwater Pollution Prevention Plan.

12.0 SURVEY CONTROL

Survey control and elevation benchmarks have been installed at various locations around the site, with coordinates based on the Massachusetts State Plan Coordinate System are located as shown on the Existing Site Conditions plan. Survey control and elevation bench marking are maintained and repaired on an as-needed basis and will be shown on the as-built plans to be submitted as part of the ATO.

13.0 ENVIRONMENTAL PROTECTION SYSTEMS CONTINGENCY PLANS

This section describes contingency plans associated with the operation and maintenance of Vertical Expansion, which are included to address the requirements of Condition 10 of the Town of Granby Board of Health's Modification to Existing Site Assignment (July 3, 2003) and the conclusions and recommendations provided in the Tighe & Bond report to the Board dated March 2003. The contingency plans described in this section address only those parts of the project that are appropriate for the Vertical Expansion.

13.1 Groundwater Protection System

An extensive groundwater protection system consisting of a state of the art double composite liner system has been provided. The system will be constructed using intensive construction quality assurance and quality control (CQAQC) procedures to verify the physical properties of the construction materials and to verify field construction methods are consistent with the technical specifications. The CQAQC documentation has been submitted as part of the application for an authorization to operate (ATO) Stage 1A and Stage 1B and will be submitted as part of the ATO for Stage 2 through 4. While a failure of this system is highly unlikely, HSLI will implement the program described below to verify the performance of the system.

13.1.1 Preventative Measures

HSLI will perform routine inspections during construction and certification of the groundwater protection system in accordance with the Construction Quality Assurance and Quality Control Plan. HSLI will regularly monitor the on-site and off-site water quality and evaluate the data to verify the performance of the groundwater protection system. HSLI will contract with a third-party engineer to prepare the landfill design, perform the CQAQC services, and will contract with a consultant specializing in hydrogeology to evaluate water quality data.

13.1.2 Potential Impacts

The main potential impact is the risk of contamination to water supply wells from landfill leachate.

13.1.3 Mitigation Measures

Assess nature and extent of the potential impact:

HSLI will expand the monitoring of water resources to assess the nature and extent of the potential impacts. HSLI will continue to test the quality and track the quantity of leachate collected. The potency of the leachate will be compared to the performance-based criteria established in the post-closure care to determine the risk of leachate contamination in the event of a liner failure.

Implement corrective actions to contain and mitigate impacts:

If reasonably accessible, HSLI will excavate and relocate waste, repair liner area, and then return to normal operations. If the area is not reasonably accessible, HSLI will accelerate the filling and capping of the liner area that failed to prevent infiltration of precipitation into the particular area. The design and operations of the liner area that failed will be modified to prevent infiltration of precipitation to the area.

If monitoring of the groundwater indicates that contaminants are at measurable levels of concern, corrective actions will be implemented based upon the extent and nature of contamination detected. Such mitigation may include pumping and re-circulating ground water to the landfill, pumping and treating ground water, or supplying the potentially impacted residents with a temporary and permanent clean water supply. The need for corrective action such as this is considered unrealistic given the hydrogeologic setting of the site and historical water quality data.

13.2 Final Cover System

The final cover system is designed to provide long-term reliable performance, using high quality construction materials and strict CQAQC monitoring. Despite the low probability of a cover failure, HSLI will implement the procedures described below to verify the cover performance and, if necessary, repair any damage to the cover system that may adversely affect its performance.

13.2.1 Preventative Measures

HSLI will perform routine inspections of all capped areas including monthly inspections during construction, quarterly inspections during operations, and annual inspections during post-closure. The CQAQC Plan will require more extensive construction oversight during final cover construction. HSLI will perform response inspections if actual conditions exceed any design conditions; and monitor the integrity of the cap for early detection of profile deformation of the cap. HSLI will contract with a third-party engineer to prepare the final cover design and review the performance of the final cover as necessary.

13.2.2 Potential Impacts

Damage to the cover system's low permeability layer may allow infiltration of precipitation into the landfill, which will increase quantities of leachate generation. Odor problems may also arise due to landfill gas migration through a break in the cover low permeability layer.

13.2.3 Mitigation Measures

Assess nature and extent of the potential impact:

HSLI will inspect the failed cap and compare surveys of the area pre- and post-failure. The cap will be inspected for visual evidence of

Excessive differential settlement;

- Erosion of cover material;
- Sedimentation in down gradient waterways; and
- Exposure of liner materials.

Implement corrective actions to contain and mitigate impacts:

Corrective actions may include the following:

- Remove failed cap and clean up area;
- Reconstruct and otherwise repair the cap;
- Perform a post-repair survey of the area for future reference; and
- Inspect downstream waterways for sediment transport from cover erosion, remove sediment, and restore waterways as necessary.

13.3 Leachate Collection System

The leachate collection system has been conservatively designed to provide sufficient capacity to transport leachate to the leachate conveyance system. The system has been designed to transport leachate in a manner that will provide reliable long-term service. To verify proper function of the leachate collection system, HSLI will implement the program described below.

13.3.1 Preventative Measures

During the operating life of the landfill, HSLI will inspect and maintain the leachate collection system on a routine basis as outlined in the site specific LCRS O&M Plan. HSLI will inspect the leachate pump stations daily (excluding Sundays and holidays) for the presence and flow of leachate. HSLI will monitor the leachate levels at least daily (excluding Sundays and holidays) to ensure pumps are operational. HSLI will inspect regularly all pump chambers, cleanout risers, and level measurement points to determine if they are intact and functioning properly. HSLI will regularly monitor and record data on leachate flows, leachate levels, and leachate pump operations. The leachate collection pipes are equipped with cleanout risers located around the perimeter of the site that provide access to the leachate collection pipes for cleaning. HSLI will evaluate the leachate

collection system annually to determine if cleaning is necessary. The leachate pump stations are designed so that, in the event of a pump failure, the pumps can be easily removed and replaced. Leachate Pump Station No. 1 (LPS-1) contains a duplex pumping system to ensure that leachate can continue to be discharged in the event one pump fails.

High and low liquid levels are monitored at LPS-1 and the other individual pump stations. Leachate discharge from the site and pH are monitored at the flow meter vault just prior to the Bartlett Street manhole. If alarm setpoints are exceeded, a signal is automatically sent to a list of site personnel and eventually an alarm service, Alarm Specialists (providing 24 hours per day, 7 days per week service) until the alarm is acknowledged. All existing leachate flow from the landfill (Phases 4 and 5 and Stage 1B) passes through the LPS-1, and a high level alarm automatically shuts all power to leachate pump stations No. 2 and 3 and Stage 1B, thereby preventing leachate from these stations to feed the LPS-1 until the level returns within the allowable range. Leachate pump stations No. 2 and 3, located in Phase 5 Stage 3B and Phase 5 Stage 4, respectively, Stage 1B, Stage 1A-1, and Stage 1A-2 also have local, audible and visual alarm for high liquid level and thermal overload. HSLI will contract with a third-party engineer to review design and operating practices as necessary.

In addition to controls for high or low level exceedance, a control mechanism has been established to control the combined leachate flows from the existing Phases 4 and 5 and the Vertical Expansion into the South Hadley sewer system. The daily and monthly discharges are monitored and controlled by a flow totalizer. The control mechanism can be set to any discharge limit imposed by the Town of South Hadley. If the daily discharge or the monthly average discharge exceeds a certain percentage of the permitted limits, an alarm will be activated to notify the operator. This notification alarm setting will allow the operator time for decision making to implement the alternate disposal method. As part of this method, the cleanout access manhole upstream of the flow meter vault has been fitted with a truck load-out assembly for either offloading leachate into a truck for disposal to an off-site facility or offloading trucked leachate into the manhole. If the daily or monthly discharge exceeds the permitted limits, the control mechanism will shut off the pumps.

After a storm event the head on the liner will be checked for each pump station, and can be closely monitored from the main PLC panel. The PLC will be allowed to sequence the pumps in the "normal" operation until reaching a certain percentage of a daily or monthly maximum discharge. At this point, site personnel may decide to implement the emergency operating plan as included in the LCRS O&M Plan. The decision will depend on the volume of leachate remaining on the liner, the time remaining to restore a minimum 12-inch head, and the remaining volume available under the discharge limits. If off-site hauling of leachate is required, trucks will be driven onto portable spill containment devices prior to being loaded with leachate.

The Action Leakage Rate (ALR) is defined as the design maximum flow rate for the secondary leachate collection system. Measured flow from the secondary system which exceeds the ALR requires immediate steps to identify and remove the cause of the exceeding high flow condition. In accordance with the Specific Conditions of the current Permit and Authorizations to Operate (ATO) Stage 1, Vertical Expansion the ALR shall be 100 gallons/acre/day. In addition, a realistic percentage of the ALR must also be identified which would initiate systematic measures before the ALR was reached. This rate will be defined as the Notification Leakage Rate (NLR) and shall be 25 gallons/acre/day. The following actions will be taken if the average daily flow rate exceeds the NLR (25 gal/acre/day):

- Notify the Department of Environmental Protection (DEP) and the Granby Board of Health (BOH) in writing within three business days;
- Continue monitoring flow rate on a daily basis;
- Conduct an engineering evaluation to identify possible sources of flow and recommend measures to reduce flow; and
- Submit Response Action Plan to DEP within 30 days of reported exceedance.

The following actions will be taken if the average daily flow rate exceeds the ALR (100 gal/acre/day):

- Notify DEP and the Granby BOH in writing within one business day;
- Continue monitoring flow rate on a daily basis;

- Conduct an engineering evaluation to identify possible sources of flow and recommend measures to reduce flow;
- Submit Response Action Plan to DEP within 7 business days of reported exceedance; and
- Commence response actions within 14 days.

13.3.2 Potential Impacts

Clogging of or damage to leachate collection system piping or failure of leachate pumping stations can cause an increase in hydraulic head of leachate on the liner.

13.3.3 Mitigation Measures

Assess nature and extent of the potential impact:

In the event of high level alarms, HSLI will inspect manholes and associated piping and determine the cause of the high level alarm.

Implement corrective actions to contain and mitigate impacts:

In the event of the leachate pipes clogging, HSLI will clean the pipes to improve the flow of leachate. In the event of a catastrophic failure of the leachate collection system at the landfill, HSLI will store leachate on the liner and pump the leachate from a manhole into a holding truck. The leachate will be transported to an off-site disposal facility.

HSLI will remedy a high level alarm by fixing a blockage, repairing or replacing a pump, or repairing infiltration into the manhole that caused the high level alarm. In the event that leachate pipes are broken and an unacceptably high level of leachate is observed over the liner, corrective action could include the installation of vertical, horizontal or angle drilled leachate extraction wells to reduce and control leachate head on the liners.

In the event of an alarm indicating an approach to permitted discharge limits, the alternative disposal method may be implemented.

When leachate is to be pumped out of the truck load-out at the flow meter vault or out of a specific pump station, site personnel will erect the reusable spill containment device such that the truck can be driven onto the device. The spill containment device has an approximate capacity of 700 gallons. Site personnel will monitor the loading of leachate into the truck. In the case of a spill, the pump will be shut off and the cause of the spill corrected prior to resuming pumping. Leachate caught it the spill containment device will be disposed of back into the leachate system or into the haul truck, and the device will be allowed to dry prior to placing it into storage.

13.4 Landfill Gas Collection System

The landfill gas system is designed to provide active gas collection and treatment throughout the operation and post-closure period. The system is modular and can be supplemented with additional components if required to control unanticipated gas generation rates. HSLI will implement the following program to verify the performance of the gas control system.

13.4.1 Preventative Measures

HSLI will comply with the procedures defined in the Landfill Gas Management System Operations and Maintenance Plan. HSLI will contract with a third-party engineer to review design and operating practices as necessary.

13.4.2 Potential Impacts

Failure of the wells to collect landfill gas (LFG), failure of the header piping, or failure of the blowers to operate may cause off-site odors from uncontrolled release of LFG.

13.4.3 Mitigation Measures

Assess nature and extent of the potential impact:

HSLI will conduct general facility inspections. Monitoring activities will include observing, measuring (or reading) and recording field conditions and operating data as described in the Landfill Gas Management Operations and Maintenance Plan.

Implement corrective actions to contain and mitigate impacts:

In the event that the LFG-to-energy facility fails, HSLI will direct all of the LFG generated by the landfill to the enclosed flare for destruction. In the event that the LFG blower is not operating due to maintenance or failure, HSLI will operate the second redundant blower to collect all of the LFG generated by the Landfill. In addition, HSLI will maintain a third blower in inventory as an additional spare that can be installed within 24-hours of both blowers failing or requiring maintenance.

In the event that LFG wells are blocked and no longer function, HSLI will install new replacement wells. In the event that the header pipe breaks or is crimped, HSLI will isolate that section of the LFG collection system, make the required repairs, and return to normal operation.

14.0 OTHER CONTINGENCY PLANS

14.1 Fire Control

The possibility of an outbreak of fire, whether on the site or within a piece of equipment, will require continual surveillance in the daily operation of the facility. The use of cover material is a simple and practical means of subduing fire. The earth-moving equipment used regularly in routine operations is generally capable of moving the amount of material needed. The hydrant next to the scale house could also be used as a water source to subdue a fire. For larger or more serious outbreaks, the local fire department can be contacted.

In the event that a "hot" load enters the site, it will be disposed in a location away from the active face of the landfill. The location of hot load areas will be established during operations. At this location, specific procedures for soil cover or water application will be followed. If burning refuse is placed on the working face, it will be isolated from previously deposited materials as much as possible. Through the use of proper incoming waste control procedures, the implementation of the fire control techniques noted above, and with an ample supply of cover material and water available on-site, fire-related contingencies can be controlled.

14.2 Dust Control

Sources of fugitive dust from the facility include soil stockpiles, landfill cover soil, roads, and waste. Effective and prompt compaction of cover soil and solid waste will substantially reduce dust emissions from these sources. Moreover, careful inspection of waste before it is spread and compacted will identify waste with a high percentage of fine particles which requires immediate spreading, compaction, and in some cases, immediate cover. (Waste generators who consistently deliver dusty wastes can be contacted and instructed to deal with the problem in a manner acceptable to the facility manager.)

To help control dust, water will be sprayed as needed during dry periods on all paved and non-paved surfaces. In addition, a street sweeper service will be retained to regularly sweep the paved surfaces.

14.3 Odor Control

Odors generated from decomposing wastes is best controlled by the daily application of sufficient amounts and types of cover material. The quantity of soil cover and/or extent of ADC, will be used

as necessary to cover wastes and reduce odors. The existing landfill gas flare and landfill gas-to-

energy system will also assist in controlling odors from areas which landfill gas is being collected.

Due to the rural location and sparse population around the site, there is limited potential of impact of

odors off-site. If odors do become an off-site problem, the facility manager will commence an

investigation to determine the source, take appropriate mitigative measures, such as expansion of the

gas collection system, and note the nature of problem and the action taken.

14.4 Noise Control

Facility operations will be concentrated in an area 500 feet or more from local residences so that the

noise generated from operations should not be a problem. The facility is surrounded in part by a

buffer of woodlands which will further serve to dampen noise impacts. All working equipment is

furnished with muffler systems.

Should noise complaints be received, the Site Manager will perform an investigation as to the source

of the noise, and take mitigative measures for valid complaints.

14.5 Vector Control

Prompt compaction and daily covering of the waste is the best way to eliminate problems due to

insect and mammal pests. Vectors are greatly discouraged when waste materials are not easily

available.

14.6 Severe Weather Conditions

Various or unusual weather conditions will directly affect the operation of the landfill and must be dealt with accordingly. Some of these possible climatic episodes and the means to avoid potential interruptions in the operation are as follows:

Freezing Conditions

A prolonged freeze can affect the availability of the source of cover soils. The equipment available on site is capable, however, of penetrating ground frost and thus maintaining an adequate supply of cover soils.

Heavy Rains

Exposed soil surfaces can create a muddy situation in some portions of the landfill during rainy periods. The control of drainage and use of gravel and crushed stone should provide all-weather access for the site by promoting drainage away from critical areas.

Intense rains can affect newly constructed drainage structures such as swales, diversions, cover soils, and vegetation. After such a rain event, inspection by landfill personnel will be initiated and evaluated by an engineer to see if corrective measures need to be taken to repair any damage found before the next rainfall.

Snowfall

The available landfilling equipment will be adequate to remove accumulated snow from access roads and operational access roads and operational areas. Snowbanks will be arranged in a manner which promotes adequate drainage when melting occurs.

Electrical Storms

The open area of a landfill is susceptible to the hazards of an electrical storm. If necessary, landfilling activities will be temporarily suspended during such an event, and to guarantee the safety of all field personnel, refuge will be taken in the maintenance buildings or in rubber-tired vehicles.

14.7 Equipment Breakdown

In the case of landfill equipment malfunction, there is sufficient equipment as backup on site to adequately maintain landfilling operations. If a piece of equipment is likely to be out of service for a long period of time or the on-site backup equipment breaks down, additional equipment could be rented, if needed.

15.0 BIRD HAZARDS

HSLI has taken a number of measures to address the potential for bird hazards to aircraft resulting from the operation of the facility. It is routine practice to limit the size of the working face to the extent possible. Fences may be used to limit access to the working face, and to control airborne litter.

In order to assist the Westover Air Force Base (Westover) in monitoring bird activity in the vicinity of flight lines, HSLI personnel observe the daily movement-of birds near the landfill, and keep Westover informed of gulls towering over the landfill. This practice will be continued as long as necessary.

Finally, HSLI is actively involved in training birds to avoid the facility, through the use of gull distress call tapes and pyrotechnics. In addition, HSLI has obtained permits to "take" herring, great-black-backed, ring gulls and other birds at the facility according to guidelines from the USDA in coordination with other landfill operators in the area and the USDA.

16.0 ACCESS ROAD MAINTENANCE

Maintenance activities will consist of replacing the gravel material as needed to ensure a proper road base. In addition, snow removal will occur as needed to provide uninterrupted access to the working phase. Should excess mud and debris be tracked onto the road, the materials will be either scraped off or additional stone placed to provide the proper traction required for equipment, especially during rainy periods.

17.0 ENVIRONMENTAL MONITORING SYSTEMS

Operation and maintenance of the various environmental monitoring systems is detailed in the Environmental Monitoring Plan. The Environmental Monitoring Plan discusses the required operation and maintenance needed to achieve design and performance specifications. Sampling analyses, methodologies and frequencies will be performed as set forth in the Environmental Monitoring Plan. The facility environmental monitoring systems will be operated and maintained to achieve design and performance specifications. In the event of damage to an environmental monitoring device, HSLI will repair or replace the device prior to the next scheduled sampling or monitoring event.

18.0 SITE SAFETY PLAN

HSLI maintains safety policies and procedures that are made known to all customers and employees. Employees receive periodic safety training.

19.0 OPERATIONAL INSPECTIONS

During the active life of any phase of the landfill, the landfill shall be inspected monthly under the direction of a registered professional engineer knowledgeable in landfill design and construction and operations. These inspections will ensure that the landfill is operated and maintained in accordance with this Operations and Maintenance Plan and that the environmental monitoring systems are in working order. These inspections will be performed as required by CMR 19.130(35) and Item 17 of the 1977 agreement between the Town of Granby and HSLI.

20.0 ANNUAL REPORTS

In accordance with 310 CMR 19.130(34)(d), HSLI will submit to MADEP, no later than February 15 of each year, an annual report. The annual report will summarize the facility's operations for the previous calendar year or portion of the previous year the facility handled waste. The annual report will describe and summarize:

- Tons of waste handled;
- Recycling and composting program results;
- Capping status at the landfill;
- Future capacity;
- Tonnages and types of cover material applied for daily, intermediate, or final cover;
- Quantity of leachate collected and treatment/disposal method;
- Financial assurance; and
- Waste ban summary.

21.0 BIMONTHLY REPORTS

In accordance with this Operations and Maintenance Plan HSLI will submit bimonthly inspection reports as conducted by a third-party engineer.

22.0 REPORTS AND RECORD KEEPING

HSLI maintains a record of all waste received at the site. This includes the weight of the waste; parties responsible for transporting, and payment.

In addition, the landfill operator will maintain the following:

- All inspection reports by MADEP or other public agencies;
- All consultant inspection reports;
- All notices of non-compliance issued by MADEP and corrective action taken;

- All environmental monitoring data including water quality data, gas emissions data, and leachate testing reports; and
- Maintenance records.

These records will remain in the file for a period of not less than five years.

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